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| Gln | Asp | Ser | Asn | Lys | Leu | Ser | Asn | Asp | Asp | Met | Leu | Lys | Leu | Leu | Ala |
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| Asp | Phe | Arg | Lys | Pro | Glu | Lys | Met | Ala | Lys | Leu | Pro | Val | Ile | Leu | Gly |
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| Asn | Leu | Asp | Ile | Thr | Ile | Asp | Asn | Val | Ser | Ser | Asp | Phe | Pro | Asn | Tyr |
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| Thr | Pro | Ile | Thr | Phe | Glu | Val | Glu | Glu | Phe | Val | Pro | Cys | Ile | Pro | Lys |
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| His | Thr | Gln | Pro | Tyr | Thr | Ile | Tyr | Thr | Asn | His | Leu | Tyr | Val | Tyr | Pro |
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| Lys | Tyr | Leu | Lys | Tyr | Asp | Ser | Gln | Lys | Ser | Phe | Ala | Lys | Ala | Arg | Asn |
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| | 980 | 985 |
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| Ile Lys His Thr Ser Phe Ser Ser Asp Val Lys Asp Leu Thr Lys Arg | | |
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| Ile Arg Thr Val Leu Met Ala Thr Ala Gln Met Lys Glu His Glu Asn | | |
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| Gln Trp Glu Pro Pro Leu Leu Pro His Ser His Ser Ala Cys Leu Arg | | |

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| Glu | Arg | Leu | Ala | His | Leu | Tyr | Asp | Thr | Leu | His | Arg | Ala | Tyr | Ser | Lys | | | | | | |
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| Val | Thr | Glu | Val | Met | His | Ser | Gly | Arg | Arg | Leu | Leu | Gly | Thr | Tyr | Phe | | | | | | |
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| Arg | Val | Ala | Phe | Phe | Gly | Gln | Ala | Ala | Gln | Tyr | Gln | Phe | Thr | Asp | Ser | | | | | | |
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| Glu | Thr | Asp | Val | Glu | Gly | Phe | Phe | Glu | Asp | Glu | Asp | Gly | Lys | Glu | Tyr | | | | | | |
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| Val | Glu | Glu | Gln | Cys | Lys | Arg | Arg | Thr | Ile | Leu | Thr | Ala | Ile | His | Cys | | | | | | |
| | | | 1380 | | | | | 1385 | | | | | 1390 | | | | | | | | |
| Phe | Pro | Tyr | Val | Lys | Lys | Arg | Ile | Pro | Val | Met | Tyr | Gln | His | His | Thr | | | | | | |
| | | 1395 | | | | | 1400 | | | | | 1405 | | | | | | | | | |
| Asp | Leu | Asn | Pro | Ile | Glu | Val | Ala | Ile | Asp | Glu | Met | Ser | Lys | Lys | Val | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |

1555
Ser Ser Val Val
1570

1560

1565

<210> 159
<211> 540
<212> DNA
<213> Homo sapiens

<400> 159
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60
tccgctcatc tgcagaatgg gtgatgctgt cggctacttcg tggcatacag gaaagtgcc
120
agcatgggtca gcctcagtga gaggtggcca gtggggagtg gtggccactg tacacctggc
180
acagcccaga gatgcatgtg ccactctgtt gtgtgcttca accaaggggc gctctggcag
240
ggcttgggtg ggacttccca aagggcattg aaaagttccc agtcaatgag atccatggag
300
acccatggga gtgggggtca gcccagcct aagaggaccc ccagccctgc cctgtgcccc
360
aggacacacc aggcactgtc ccttgctgcc ttcccagaca acctgtaccc tccaggccac
420
cagttctcgt ccatgacaaa gaaaggagcc ttctaaataa gtgcccgcga gaggtgcac
480
gcttcctgc cccttcggg tggacctggg tttcaaagag aagctgccag tgcaacgcgt
540

<210> 160
<211> 110
<212> PRT
<213> Homo sapiens

<400> 160
Met Val Ser Leu Ser Glu Arg Trp Pro Val Gly Ser Gly Gly His Cys
1 5 10 15
Thr Pro Gly Thr Ala Gln Arg Cys Met Cys His Ser Val Val Cys Phe
20 25 30
Asn Gln Gly Ala Leu Trp Gln Gly Leu Gly Gly Thr Ser Gln Arg Ala
35 40 45
Trp Lys Ser Ser Gln Ser Met Arg Ser Met Glu Thr His Gly Ser Gly
50 55 60
Gly Gln Pro Gln Pro Lys Arg Thr Pro Ser Pro Ala Leu Cys Pro Arg
65 70 75 80
Thr His Gln Ala Leu Ser Leu Val Ala Phe Pro Asp Asn Leu Tyr Pro
85 90 95
Pro Gly His Gln Phe Ser Ser Met Thr Lys Lys Gly Ala Phe
100 105 110

<210> 161
<211> 351
<212> DNA
<213> Homo sapiens

<400> 161
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 cgcgcttggc tcgcagcgac gatgaagggc gacgacagca gcaagatcac ccacaagatc
 120
 gcccggggcga agcgcgaggg ccgcgtatgg tggagctttg agtacttccc gccgcgcacg
 180
 ccgcaggggca tgcagaattt gtatgaccgt atcgagcgca tgagtcagct gggccccgag
 240
 tttgtggaca ttacgtggaa tgccgggggc cggacgtcgg atatgacgac gcagctggtc
 300
 aagcgggtgc atgcgtactt tgggtgctgag acgtgcatgc atctgacgtg c
 351

<210> 162
 <211> 117
 <212> PRT
 <213> Homo sapiens

<400> 162
 Xaa Arg Val Arg Leu Ser Ala Glu Glu Gly Thr Trp Ala Gly Ala Ser
 1 5 10 15
 Phe Ala Gly Arg Arg Ala Trp Leu Ala Ala Thr Met Lys Gly Asp Asp
 20 25 30
 Ser Ser Lys Ile Thr His Lys Ile Ala Arg Ala Lys Arg Glu Gly Arg
 35 40 45
 Val Trp Trp Ser Phe Glu Tyr Phe Pro Pro Arg Thr Pro Gln Gly Met
 50 55 60
 Gln Asn Leu Tyr Asp Arg Ile Glu Arg Met Ser Gln Leu Gly Pro Glu
 65 70 75 80
 Phe Val Asp Ile Thr Trp Asn Ala Gly Gly Arg Thr Ser Asp Met Thr
 85 90 95
 Thr Gln Leu Val Lys Thr Val His Ala Tyr Phe Gly Val Glu Thr Cys
 100 105 110
 Met His Leu Thr Cys
 115

<210> 163
 <211> 360
 <212> DNA
 <213> Homo sapiens

<400> 163
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 gacacctaca ccctgcgtca gcccatcggc gtatgcgcag gcatcactcc gttcaacttc
 120
 ccggcgatga ttccactgtg gatgttcccg atggcgattg cctgcggtaa cactttcgtg
 180
 ctcaaaccgt ccgaacaaga ccctctgtcg acgatgctgc tggtagaact ggcgctggaa
 240
 gccggtgtgc cggccggcgt gctcaacgtg gtgcacggcg gcaaggatgt ggtggatgcg
 300

ctgtgcaccc ataaagatat caaggcagtt tctttcgtcg gttcgaccgc cgttggtacc
360

<210> 164

<211> 120

<212> PRT

<213> Homo sapiens

<400> 164

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Cys | Ser | Ile | Gly | Thr | Leu | Gln | Met | Gly | Glu | Phe | Ala | Glu | Asn | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Gly | Gly | Val | Asp | Thr | Tyr | Thr | Leu | Arg | Gln | Pro | Ile | Gly | Val | Cys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Gly | Ile | Thr | Pro | Phe | Asn | Phe | Pro | Ala | Met | Ile | Pro | Leu | Trp | Met |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Phe | Pro | Met | Ala | Ile | Ala | Cys | Gly | Asn | Thr | Phe | Val | Leu | Lys | Pro | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Glu | Gln | Asp | Pro | Leu | Ser | Thr | Met | Leu | Leu | Val | Glu | Leu | Ala | Leu | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ala | Gly | Val | Pro | Ala | Gly | Val | Leu | Asn | Val | Val | His | Gly | Gly | Lys | Asp |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Val | Val | Asp | Ala | Leu | Cys | Thr | His | Lys | Asp | Ile | Lys | Ala | Val | Ser | Phe |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Val | Gly | Ser | Thr | Ala | Val | Gly | Thr | | | | | | | | |
| | | | 115 | | | | 120 | | | | | | | | |

<210> 165

<211> 728

<212> DNA

<213> Homo sapiens

<400> 165

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120
aagtttgga accgcaacgt cttcatgaag gacaacagct cttcttcag cacagactcc
180
cgctcccgt cctcctccag gtccccgacg cgccacttcc gcagaagtga ctcccactca
240
gactccgaca gctcctactc agggaaatgag tgtcaccctg tgggccgcag gaacccgccc
300
cctaagggcc ggggcggtcg aggggcccac atggatcggg gccgaggcag ggcgcagcgt
360
gggaagaggc acgatctggc gcccaccaag cgcagtcgaa agaagatggc ggcgctggag
420
tgtgaggacc cggagcgaga gctgaagaag cagaagcggg cagcccgtt ccagcacgga
480
cactcccgcc gcctgcgcct cgagcccctg gtgctgcaga tgagcagcct ggagagcagt
540
ggggctgacc ctgactggca ggagctgcag atcgtgggca cctgccctga catcaccaag
600
cactacctgc gcctcacctg tgccccgac ccgccaccg tgcgccctgt ggcattccct
660

gtggcagggtt ttgaaaaagt cgctgtgcat ggtcaagtgc cactggaaag agaagcagga

720

ctacgcgt

728

<210> 166

<211> 242

<212> PRT

<213> Homo sapiens

<400> 166

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ser | Ser | Leu | His | Pro | Pro | Arg | Gly | Ala | Gly | Ser | Ala | Thr | Arg | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Gly | Ala | Pro | Ser | Gln | Arg | Gly | Thr | Pro | Gly | Ala | Gly | Gly | Ala | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Ala | Arg | Gly | Asn | Ser | Phe | Thr | Lys | Phe | Gly | Asn | Arg | Asn | Val | Phe |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Met | Lys | Asp | Asn | Ser | Ser | Ser | Ser | Ser | Thr | Asp | Ser | Arg | Ser | Arg | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Ser | Arg | Ser | Pro | Thr | Arg | His | Phe | Arg | Arg | Ser | Asp | Ser | His | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Asp | Ser | Asp | Ser | Ser | Tyr | Ser | Gly | Asn | Glu | Cys | His | Pro | Val | Gly | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Arg | Asn | Pro | Pro | Pro | Lys | Gly | Arg | Gly | Gly | Arg | Gly | Ala | His | Met | Asp |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Arg | Gly | Arg | Gly | Arg | Ala | Gln | Arg | Gly | Lys | Arg | His | Asp | Leu | Ala | Pro |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Thr | Lys | Arg | Ser | Arg | Lys | Lys | Met | Ala | Ala | Leu | Glu | Cys | Glu | Asp | Pro |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Glu | Arg | Glu | Leu | Lys | Lys | Gln | Lys | Arg | Ala | Ala | Arg | Phe | Gln | His | Gly |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | |
| His | Ser | Arg | Arg | Leu | Arg | Leu | Glu | Pro | Leu | Val | Leu | Gln | Met | Ser | Ser |
| | | | 165 | | | | | 170 | | | | | 175 | | |
| Leu | Glu | Ser | Ser | Gly | Ala | Asp | Pro | Asp | Trp | Gln | Glu | Leu | Gln | Ile | Val |
| | | 180 | | | | | 185 | | | | | | 190 | | |
| Gly | Thr | Cys | Pro | Asp | Ile | Thr | Lys | His | Tyr | Leu | Arg | Leu | Thr | Cys | Ala |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Pro | Asp | Pro | Ser | Thr | Val | Arg | Pro | Val | Ala | Phe | Pro | Val | Ala | Gly | Phe |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Glu | Lys | Val | Ala | Val | His | Gly | Gln | Val | Pro | Leu | Glu | Arg | Glu | Ala | Gly |
| 225 | | | | | 230 | | | | | 235 | | | | 240 | |
| Leu | Arg | | | | | | | | | | | | | | |

<210> 167

<211> 510

<212> DNA

<213> Homo sapiens

<400> 167

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60

gcaacacaga attgtcaggt cctgtgccgt gaccaccaac cctcggggcca tgccaggtgc

120

tgggtgagggg caggtggctc ccgccaggcg cctgctggcc tgaccgcact ccgtccacag
 180
 gtcctcatgg gcgtcctccg gctgggcttc gtgtccgcct acctctcaca gccactgctc
 240
 gatggctttg ccatgggggc ctccgtgacc atcctgacct cgcagctcaa acacctgctg
 300
 ggcgtgcgga tcccgcggca ccagggggcc ggcatgggtg tcctcacatg gctgagcctg
 360
 ctgcgcggcg ccgggcaggc caacgtgtgc gacgtgggtca ccagcacggt gtgcctggcg
 420
 gtgctgctag ccgcgaagga gctctcagac cgctaccgac accgcctgag ggtgccgctg
 480
 cccacggagc tgctgggtcat cgtgggtggcc
 510

<210> 168

<211> 128

<212> PRT

<213> Homo sapiens

<400> 168

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ala | Gly | Gly | Ser | Arg | Gln | Ala | Pro | Ala | Gly | Leu | Thr | Ala | Leu | Arg |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Pro | Gln | Val | Leu | Met | Gly | Val | Leu | Arg | Leu | Gly | Phe | Val | Ser | Ala | Tyr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Ser | Gln | Pro | Leu | Leu | Asp | Gly | Phe | Ala | Met | Gly | Ala | Ser | Val | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ile | Leu | Thr | Ser | Gln | Leu | Lys | His | Leu | Leu | Gly | Val | Arg | Ile | Pro | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| His | Gln | Gly | Pro | Gly | Met | Val | Val | Leu | Thr | Trp | Leu | Ser | Leu | Leu | Arg |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Gly | Ala | Gly | Gln | Ala | Asn | Val | Cys | Asp | Val | Val | Thr | Ser | Thr | Val | Cys |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Leu | Ala | Val | Leu | Leu | Ala | Ala | Lys | Glu | Leu | Ser | Asp | Arg | Tyr | Arg | His |
| | | 100 | | | | | 105 | | | | | 110 | | | |
| Arg | Leu | Arg | Val | Pro | Leu | Pro | Thr | Glu | Leu | Leu | Val | Ile | Val | Val | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |

<210> 169

<211> 537

<212> DNA

<213> Homo sapiens

<400> 169

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 120
 attgtcgggt cggcatcgtc catccacacc gttcgatggg tcaatggact ggtaacggg
 180
 ggtcacgagg ttcacctggc atcagtcctc ccggcggggc gtcactccat tgatccccga
 240
 gttcggatcc acctggcccc acacggcggg aaggcaaaat acgtcgtcaa tgccggctgg
 300

ctgcgatcag tggcggctgg ggtgcaacct gacatcgtea acgtccacta tgcgaccggt
 360
 tatgggtctgc tcgctcgtct tgeccatatt gacgccccga cgctgctgtc ggtgtgggga
 420
 agtgacgttt acgattcccc ccgggcaaatt cccctcatgc gtcacatggt ccgatccaac
 480
 ttggtctcag ctactcggat cgcacgcaca agccactgca tggcgcgtgt caccgct
 537

<210> 170
 <211> 164
 <212> PRT
 <213> Homo sapiens

<400> 170
 Cys Ala Thr Ala Gly Ala Leu Lys Glu Ser Gly His Arg Arg Cys Ser
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 Thr Arg Gly Glu Gly Val Arg Ile Leu Ile Val Gly Ala Ala Ser Ser
 20 25 30
 Ile His Thr Val Arg Trp Val Asn Gly Leu Val Lys Arg Gly His Glu
 35 40 45
 Val His Leu Ala Ser Val His Pro Ala Gly Arg His Ser Ile Asp Pro
 50 55 60
 Arg Val Arg Ile His Leu Ala Pro His Gly Gly Lys Ala Lys Tyr Val
 65 70 75 80
 Val Asn Ala Gly Trp Leu Arg Ser Val Ala Ala Gly Val Gln Pro Asp
 85 90 95
 Ile Val Asn Val His Tyr Ala Thr Gly Tyr Gly Leu Leu Ala Arg Leu
 100 105 110
 Ala His Ile Asp Ala Pro Thr Leu Leu Ser Val Trp Gly Ser Asp Val
 115 120 125
 Tyr Asp Ser Pro Arg Ala Asn Pro Leu Met Arg His Met Val Arg Ser
 130 135 140
 Asn Leu Val Ser Ala Thr Arg Ile Ala Ser Thr Ser His Cys Met Ala
 145 150 155 160
 Arg Val Thr Arg

<210> 171
 <211> 391
 <212> DNA
 <213> Homo sapiens

<400> 171
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 120
 ggcgtcatcc ataccgactt ccagaagggg ttcacaaagg cccagggtgt gtccttcggc
 180
 gaccttggtg aatttgggcg cgaaaaggag gccaggctg ctgggaagct gcggttgagg
 240
 ggcaaggagt acgttatgca ggaagggtgac gtagtggaat tccgatttaa cgtgtagctc
 300

tggtttgata cttacttggc ttaaccgcat ctgagatccg tcatatcttt ggcgtagcct
 360
 tattggatatg aataacatgc cgtagccaaa g
 391

<210> 172
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 172
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 Phe Leu Thr Ala Gly Glu Lys Glu Ser Arg Ala Trp Thr Ile His Lys
 20 25 30
 Gly Asp Thr Ala Pro Glu Ala Ala Gly Val Ile His Thr Asp Phe Gln
 35 40 45
 Lys Gly Phe Ile Lys Ala Gln Val Val Ser Phe Gly Asp Leu Val Glu
 50 55 60
 Phe Gly Gly Glu Lys Glu Ala Gln Ala Ala Gly Lys Leu Arg Leu Glu
 65 70 75 80
 Gly Lys Glu Tyr Val Met Gln Asp Gly Asp Val Val Glu Phe Arg Phe
 85 90 95
 Asn Val

<210> 173
 <211> 309
 <212> DNA
 <213> Homo sapiens

<400> 173
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 120
 ccagccccgg aaccgaggt ctggggacgc agccgaccag ccctccttgt ctgggcctct
 180
 gtttcctctt cgacacaggg aagcagggag gggccgatca gcgacttagg cctgttggt
 240
 gtggtggggc ccctgcgtt tctgggaagc cacggaccct gggatgtacc tgggtttcat
 300
 tcgcagtga
 309

<210> 174
 <211> 102
 <212> PRT
 <213> Homo sapiens

<400> 174
 Met Glu Cys Pro Leu Cys Glu His Phe Glu Ser Tyr Thr Asn Thr His
 .1 5 10 15
 Pro Cys Arg Ser Gln Ser Arg Ala Ile Ser Gln Glu Ser Arg Lys Gly

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| 20 | | | | | | | 25 | | | | | 30 | | | | |
| Ala | Gly | Arg | Gly | Val | Leu | Pro | Ala | Ser | Pro | Gly | Thr | Arg | Gly | Leu | Gly | |
| 35 | | | | | | | 40 | | | | | 45 | | | | |
| Thr | Gln | Pro | Thr | Ser | Pro | Pro | Cys | Leu | Gly | Leu | Cys | Phe | Leu | Phe | Asp | |
| 50 | | | | | | | 55 | | | | | 60 | | | | |
| Thr | Gly | Lys | Gln | Gly | Gly | Ala | Asp | Gln | Arg | Leu | Arg | Pro | Val | Gly | Cys | |
| 65 | | | | | | | 70 | | | | | 75 | | | | |
| Gly | Gly | Val | Pro | Cys | Val | Ser | Gly | Lys | Pro | Arg | Thr | Leu | Gly | Cys | Thr | |
| 85 | | | | | | | 90 | | | | | 95 | | | | |
| Trp | Val | Ser | Phe | Ala | Val | | | | | | | | | | | |
| 100 | | | | | | | | | | | | | | | | |

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<210> 175
<211> 8484
<212> DNA
<213> Homo sapiens
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<400> 175
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120
agggtccatcc cacacgttgt ccagttggat cctatggcag gctggctgtg gctttctctc
180
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240
gccaaggact ggtggatggg tggctggaag cagcgcacat gctccacagt ggaactgtct
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360
tacttctga tccggtcggc catcttcttc aggggcacat tcttaatgat ttcattcttc
420
ccgtctctgcc tctgcacttt tagcaggtgg taacagaagt cgaacaggtc aaagcgacgc
480
tgctggccca gcaggacaat gatggagcaa ccagcccagt tcaagccatc gccgaaacac
540
tgctcagctg tgaactcggt gggtccaca gggatgcagt acacgaactg catggcgctc
600
cacagccggt ggaactccac acactcatcg acgtgcatga cgccattggt gggcggtggg
660
ccccgccaga tggggtcctg caggtagctc cgaatgcggg tcaggatgac ctcaaacatg
720
gacaggccac agcacagccg ctcccttggtc aggagggtcac cctcgcgagc aatggcgatt
780
tgctgagggg tccccagccg ctcgatcaga gggaccagggt ggagcggggc atacttggct
840
tccagacgtt tcattttggc atcaagtctc tccccctctt tcacatggac tcgcggcaag
900
atgttctgga aaggagccgc gtgcagcagg tcacacactt cttctaaaga cagagctctg
960
ctcgatgagg aggcagaaga ggatggcatt gcccacttcc ctcaggctct ggaagcacgt
1020
ctgttttgag ctctgcgtac tcaatgatgt ccttcagctg gtgggtggaag aactccagga
1080

```

tccctgggga gccatactca tgtcggggca agcggcatat cttgggcatc acctctatca
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 1200
 cctccatgac cacagcgatg ccttgataac ccaggagtct gcagatagtc ttgaaagtgt
 1260
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 1320
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 1380
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 1440
 aggaagtcac agttgagctc ccagaagacg tgcagggtga tcctcccgta gggcgctgac
 1500
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 1560
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 1620
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 1680
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 1800
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 1860
 gcaaatatct ggtctgccag cttgtagaca aactgatcaa aacacagggt cacctcagct
 1920
 tctatctcat cgtacaggaa ctgcttttta aacttgggtca gagcatagta ggcgctgtca
 1980
 ttgtacagat ccaggagagta gagcacgtac tccatcatgg aagggtcttt ggtttccagg
 2040
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 2460
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| Ser | Met | Tyr | Leu | Ala | Met | Pro | Val | Thr | Asn | Ala | Phe | Leu | Ser | Ser | Lys |
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| Phe | Val | Ser | Lys | Leu | Ala | Trp | Tyr | Met | Met | Glu | Glu | Gly | Gly | Gly | Ser |
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| Ala | Thr | Ala | Gly | Pro | Arg | Ala | Gly | Ala | Gln | Asp | Ala | Leu | Pro | Arg | Ser |

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| Gln Asn Ile Leu Pro Arg Val His Val Lys Glu Gly Glu Arg Leu Asp | | | | | |
| 1170 | | 1175 | | 1180 | |
| Ala Lys Met Lys Arg Leu Glu Ser Lys Tyr Ala Pro Leu His Leu Val | | | | | |
| 1185 | | 1190 | | 1195 | 1200 |
| Pro Leu Ile Glu Arg Leu Gly Thr Pro Gln Gln Ile Ala Ile Ala Arg | | | | | |
| 1205 | | 1210 | | 1215 | |
| Glu Gly Asp Leu Leu Thr Lys Glu Arg Leu Cys Cys Gly Leu Ser Met | | | | | |
| 1220 | | 1225 | | 1230 | |
| Phe Glu Val Ile Leu Thr Arg Ile Arg Ser Phe Leu Asp Asp Pro Ile | | | | | |
| 1235 | | 1240 | | 1245 | |
| Trp Arg Gly Pro Leu Pro Ser Asn Gly Val Met His Val Asp Glu Cys | | | | | |
| 1250 | | 1255 | | 1260 | |
| Val Glu Phe His Arg Leu Trp Ser Ala Met Gln Phe Val Tyr Cys Ile | | | | | |
| 1265 | | 1270 | | 1275 | 1280 |
| Pro Val Gly Thr His Glu Phe Thr Val Glu Gln Cys Phe Gly Asp Gly | | | | | |
| 1285 | | 1290 | | 1295 | |
| Leu His Trp Ala Gly Cys Met Ile Ile Val Leu Leu Gly Gln Gln Arg | | | | | |
| 1300 | | 1305 | | 1310 | |
| Arg Phe Ala Val Leu Asp Phe Cys Tyr His Leu Leu Lys Val Gln Lys | | | | | |
| 1315 | | 1320 | | 1325 | |
| His Asp Gly Lys Asp Glu Ile Ile Lys Asn Val Pro Leu Lys Lys Met | | | | | |
| 1330 | | 1335 | | 1340 | |
| Val Glu Arg Ile Arg Lys Phe Gln Ile Leu Asn Asp Glu Ile Ile Thr | | | | | |
| 1345 | | 1350 | | 1355 | 1360 |
| Ile Leu Asp Lys Tyr Leu Lys Ser Gly Asp Gly Glu Gly Thr Pro Val | | | | | |
| 1365 | | 1370 | | 1375 | |
| Glu His Val Arg Cys Phe Gln Pro Pro Ile His Gln Ser Leu Ala Ser | | | | | |
| 1380 | | 1385 | | 1390 | |
| Ser | | | | | |

<210> 177
 <211> 417
 <212> DNA
 <213> Homo sapiens

<400> 177
 acgcgtgatg tcacactgcc tctgccgctg ggtcctaatt cgattgcacg caccatggct
 60
 gcagttcgtg gcgcgcatag tttctggcat gtttcgcgca tcctggagac cgatcccgcc
 120
 gctgccgtga aaccgcctaa aaatgtgaag cgattgccca aagccgtgtc cgtggagcaa
 180
 atgcaaaaagc tccttgccat acccagtctt aagactccta ccggcctgcg taatcgagcg
 240
 atacttgagt tcttatatgc taccggcgcg cgcgtgagcg agatgctggc aacagacctg
 300
 gacgatatac acctgggcga aaaacccgcg gatgaaaacg gggaatctat tgcacttccc
 360
 gggatatgtg gccttttttg aaagggaggt aaagagcggt tagtcccttt gggatcc
 417

<210> 178
 <211> 139
 <212> PRT
 <213> Homo sapiens

<400> 178
 Thr Arg Asp Val Thr Leu Pro Leu Pro Leu Gly Pro Asn Ser Ile Ala
 1 5 10 15
 Arg Thr Met Ala Ala Val Arg Gly Ala His Ser Phe Trp His Ala Ser
 20 25 30
 Arg Ile Leu Glu Thr Asp Pro Ala Ala Val Lys Pro Pro Lys Asn
 35 40 45
 Val Lys Arg Leu Pro Lys Ala Val Ser Val Glu Gln Met Gln Lys Leu
 50 55 60
 Leu Ala Ile Pro Ser Leu Lys Thr Pro Thr Gly Leu Arg Asn Arg Ala
 65 70 75 80
 Ile Leu Glu Phe Leu Tyr Ala Thr Gly Ala Arg Val Ser Glu Met Leu
 85 90 95
 Ala Thr Asp Leu Asp Asp Ile His Leu Gly Glu Lys Pro Arg Asp Glu
 100 105 110
 Asn Gly Glu Ser Ile Ala Leu Pro Gly Tyr Val Arg Leu Phe Gly Lys
 115 120 125
 Gly Gly Lys Glu Arg Leu Val Pro Leu Gly Ser
 130 135

<210> 179
 <211> 362
 <212> DNA
 <213> Homo sapiens

<400> 179
 acgcgtcgaa ggtgccggtg gggcgatca ataacatcgc gcaatccctg gaagagcctc
 60

aggtgattgc ccgtgggttg atggtggaag atcccccatc cccaagaatc cgggaattcg
 120
 ccattggggcc gggcagcccg aatccaaaat gtcggggcac gccagtgagg agtatggtaa
 180
 ggggccggca ccgatgttgg nggcagcata cggatggaag tgctgggcga ggcctgggt
 240
 ttgccggcag agcaactggg gcagctcaag gcgggcgggg tgatcgagca gttggattga
 300
 gcaatggcgg ccgcgaagcc cgccatttac cttgatgact gtttagcgcg cggattcttt
 360
 aa
 362

<210> 180
 <211> 108
 <212> PRT
 <213> Homo sapiens

<400> 180
 Met Ala Gly Phe Ala Ala Ala Ile Ala Gln Ser Asn Cys Ser Ile Thr
 1 5 10 15
 Pro Pro Ala Leu Ser Cys Pro Ser Cys Ser Ala Gly Lys Pro Arg Arg
 20 25 30
 Ser Pro Ser Thr Ser Ile Arg Met Leu Pro Pro Thr Ser Val Pro Ala
 35 40 45
 Pro Tyr His Thr Pro Thr Gly Arg Ala Pro Thr Phe Trp Ile Arg Ala
 50 55 60
 Ala Arg Pro Asn Gly Glu Phe Pro Asp Ser Trp Gly Cys Gly Ile Phe
 65 70 75 80
 His His Gln Pro Thr Gly Asn His Leu Arg Leu Phe Gln Gly Leu Arg
 85 90 95
 Asp Val Ile Asp Arg Pro His Arg His Leu Arg Arg
 100 105

<210> 181
 <211> 297
 <212> DNA
 <213> Homo sapiens

<400> 181
 gcgttgatca tgtccgaccc aggttgatc atgctggtac gccgtcactt cccgtgcatg
 60
 ccgattcact tgtcggtaca ggccaatacg gtgaattggg ccagcgtcga gttctggcaa
 120
 cagcaaggta tctgccgggt aatcctgtcg cgggaattgt cactggaaga aatcggcgaa
 180
 atccgccaac aggtgccggc catggagctg gaagtgtttg tgcacggtgc cctgtacatg
 240
 gcctattccg ggcgtgtttt gttgtccggc tatatgaaca agcgcgatgc caaccaa
 297

<210> 182
 <211> 99
 <212> PRT

<213> Homo sapiens

<400> 182

```

Ala Leu Ile Met Ser Asp Pro Gly Leu Ile Met Leu Val Arg Arg His
 1           5           10           15
Phe Pro Cys Met Pro Ile His Leu Ser Val Gln Ala Asn Thr Val Asn
      20           25           30
Trp Ala Ser Val Glu Phe Trp Gln Gln Gly Ile Cys Arg Val Ile
      35           40           45
Leu Ser Arg Glu Leu Ser Leu Glu Glu Ile Gly Glu Ile Arg Gln Gln
      50           55           60
Val Pro Ala Met Glu Leu Glu Val Phe Val His Gly Ala Leu Tyr Met
65           70           75           80
Ala Tyr Ser Gly Arg Cys Leu Leu Ser Gly Tyr Met Asn Lys Arg Asp
      85           90           95
Ala Asn Gln

```

<210> 183

<211> 351

<212> DNA

<213> Homo sapiens

<400> 183

```

cgggacgtca ccatagaagcc gaccggctcg ggggatgtgg cgaacaaggt catcacccat
60
attccggttta acatcgcttc ccaggcgact catccattcc ttcgtacctt ggacgatgtc
120
aagcgcattct ctttggcgac cgacgggctc ggccaccagg tcttgcctcaa gggctaccag
180
gccgagggcc acgactacgc acaccccgac tacggcggca acgtctccca ccgtgccggc
240
gggatgaagg atctcgagaa gtcaccgag tcgggcaggc agtggaaacac cgatttcggc
300
attcacgtca acctggtgga gtcctatcct gaggcgaatc acttcggcga c
351

```

<210> 184

<211> 117

<212> PRT

<213> Homo sapiens

<400> 184

```

Arg Asp Val Thr Met Lys Pro Thr Gly Ser Gly Asp Val Ala Asn Lys
 1           5           10           15
Val Ile Thr His Ile Pro Phe Asn Ile Val Ser Gln Ala Thr His Pro
      20           25           30
Phe Leu Arg Thr Leu Asp Asp Val Lys Arg Ile Ser Leu Ala Thr Asp
      35           40           45
Gly Leu Gly His Gln Val Leu Leu Lys Gly Tyr Gln Ala Glu Gly His
      50           55           60
Asp Tyr Ala His Pro Asp Tyr Gly Gly Asn Val Ser His Arg Ala Gly
65           70           75           80
Gly Met Lys Asp Leu Glu Lys Leu Thr Glu Ser Gly Arg Gln Trp Asn

```

[illegible]

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<210> 185
<211> 396
<212> DNA
<213> Homo sapiens
```

```

<400> 185
cgcgtaggggc tcagtaaaga aaatttggtg cttagaggat gcaccattag aaacacagag
60
gctgttggtg gcattgtggt ttatgcaggc catgaaacca aagcaatgct gaacaacagt
120
gggccacggg ataagcgcag caaattagaa agaagagcaa acacagatgt cctctgggtg
180
gtcatgcttc tggtcataat gtgcttaact ggcgcagtag gtcatggaat ctggctgagc
240
aggtatgaaa agatgcattt tttcaatgtt cccgagcctg atggacatat catatcacca
300
ctggtggcag gattttatat gttttggacc gtgatcattt tgttacaggc cttgattcct
360
atttctctct atgtttccat cgaaattgtg aagctt
396

```

```
<210> 186
<211> 132
<212> PRT
<213> Homo sapiens
```

```
<400> 186
Arg Val Gly Leu Ser Lys Glu Asn Leu Leu Leu Arg Gly Cys Thr Ile
   1               5              10             15
Arg Asn Thr Glu Ala Val Val Gly Ile Val Val Tyr Ala Gly His Glu
           20                25                 30
Thr Lys Ala Met Leu Asn Asn Ser Gly Pro Arg Tyr Lys Arg Ser Lys
          35                   40                  45
Leu Glu Arg Arg Ala Asn Thr Asp Val Leu Trp Cys Val Met Leu Leu
      50                    55                     60
Val Ile Met Cys Leu Thr Gly Ala Val Gly His Gly Ile Trp Leu Ser
65            70                75                 80
Arg Tyr Glu Lys Met His Phe Phe Asn Val Pro Glu Pro Asp Gly His
        85                   90                  95
Ile Ile Ser Pro Leu Leu Ala Gly Phe Tyr Met Phe Trp Thr Val Ile
         100                105                 110
Ile Leu Leu Gln Val Leu Ile Pro Ile Ser Leu Tyr Val Ser Ile Glu
       115                   120                  125
Ile Val Lys Leu
     130
```

<210> 187
<211> 423

<212> DNA

<213> Homo sapiens

<400> 187

```
cgagtgtca ccgcgtcagc cgtcatgcgt ccactgagg ctgttgctc tcggtcggca
60
gaacctcgac gagttcagcg gacccctggac cagcgcgagt gggctggcgt cttcgttgct
120
gatgagcatc gtcgtttgct tggcacggtc ggcatcaag aggtcatcga ggctgctcgc
180
cgccggagatc gcagtattgc tgacgcgggtg gaaactaacg gcaccctcac ggcgcggacc
240
gacctccgt tgtccgagct cttcgtccg accagcaacg ccagggtgcc gttggccgtt
300
gtcgcagagg acttcacac cttcgggtgct atctctcggg tgacctgct cgacgcgatg
360
tcacgagctc gcgacgaggc aggagagggg tctgtcatgt ccttgagaa caccgaaag
420
ctt
423
```

<210> 188

<211> 141

<212> PRT

<213> Homo sapiens

<400> 188

```
Arg Val Leu Thr Ala Ser Ala Val Met Arg Pro Thr Glu Ala Val Val
1      5      10      15
Ser Arg Ser Ala Glu Pro Arg Arg Val Gln Arg Ile Leu Asp Gln Arg
20     25     30
Glu Trp Ala Gly Val Phe Val Val Asp Glu His Arg Arg Leu Leu Gly
35     40     45
Thr Val Gly Asp Gln Glu Val Ile Glu Ala Ala Arg Arg Gly Asp Arg
50     55     60
Ser Ile Ala Asp Ala Val Glu Thr Asn Gly Ile Leu Thr Ala Arg Thr
65     70     75     80
Asp Thr Pro Leu Ser Glu Leu Phe Ala Pro Thr Ser Asn Ala Arg Val
85     90     95
Pro Leu Ala Val Val Asp Glu Asp Phe His Leu Met Gly Val Ile Ser
100    105    110
Arg Val Thr Leu Leu Asp Ala Met Ser Arg Ala Arg Asp Glu Ala Gly
115    120    125
Glu Gly Ser Val Met Ser Leu Glu Asn Thr Gly Lys Leu
130    135    140
```

<210> 189

<211> 429

<212> DNA

<213> Homo sapiens

<400> 189

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ngatggttta ccaacatag cagcgttcga gcggcaatag ctctcgggg gctggcagtg
60
```

aaatgtttga agatgccggc gtttcgggcc tcaacttgtt tcgatgccgt ggttccaccg
 120
 atttcgccga tgcggctcat cgcacgggta agaagtttcg tccagataac ccaggacaga
 180
 gcaaggtata tcaggctcag aaccaggaaa agcaggggctt taccacagtg ccccatatag
 240
 accgcgctag ctacggcaaa aggcgcgccc agtgggggtcc aggacagcac tttcatggct
 300
 gaagggagcg catcccnagc ttcgcctagc cccagagcta acccagcgac cagtggacca
 360
 gcgcccata tcagtaggaa ccctacgata atcagccctt gttttacccc tggaatggag
 420
 ctgatttcn
 429

<210> 190
 <211> 123
 <212> PRT
 <213> Homo sapiens

<400> 190
 Met Met Gly Ala Gly Pro Leu Val Ala Gly Leu Ala Leu Gly Leu Gly
 1 5 10 15
 Glu Ala Xaa Asp Ala Leu Pro Ser Ala Met Lys Val Leu Ser Trp Thr
 20 25 30
 Pro Leu Gly Ala Pro Phe Ala Val Ala Ser Ala Val Tyr Met Gly His
 35 40 45
 Trp Gly Lys Ala Leu Leu Phe Leu Val Leu Ser Leu Ile Tyr Leu Ala
 50 55 60
 Leu Ser Trp Val Ile Trp Thr Lys Leu Leu Asn Arg Ala Met Ser Arg
 65 70 75 80
 Ile Gly Glu Ile Gly Gly Thr Thr Ala Ser Lys Gln Val Glu Ala Gly
 85 90 95
 Asn Ala Gly Ile Phe Lys His Phe Thr Ala Ser Pro Arg Gly Ala Ile
 100 105 110
 Ala Ala Arg Thr Val His Met Leu Val Asn His
 115 120

<210> 191
 <211> 4845
 <212> DNA
 <213> Homo sapiens

<400> 191
 ccgccccggg ccatggcgac actcagcttc gtcttctctg tgctgggggc agtgctctgg
 60
 cctccggctt ctgcctccgg ccaggagttc tggcccgagc aatcggcggc cgatattctg
 120
 tcggggggcg cttcccgag acggtatctt ctgtatgacg tcaaccccc ggaaggcttc
 180
 aacctgcgca gggatgtcta tatccgaatc gcctctctcc tgaagactct gctgaagacg
 240
 gaggagtggg tgcttgctct gcctccatgg ggccgcctct atcactggca gagtcttgac
 300

atccaccagg tccggattcc ctggtctgag ttttttgatc ttccaagtct caataaaaaac
 360
 atccccgtca tcgagtatga gcagttcatc gcagaatctg gtggggccctt tattgaccag
 420
 gtttacgtcc tgcaaagtta cgcagagggg tggaaagaag ggacctggga agagaagggtg
 480
 gacgagcggc cgtgtattga tcagctcctg tactcccagg acaagcacga gtactacaga
 540
 ggatgggtttt ggggttatga ggagaccagg ggtctaaacg tctcctgtct gtccgtccag
 600
 ggctcagcct ccatcgtggc gcccctgctg ctgagaaaca catcagccccg gtccgtgatg
 660
 ttagacagag ccgagaacct acttcacgac cactatggag ggaaagaata ctgggatacc
 720
 cgtcgcagca tgggtgtttgc caggcacctg cgggaggtgg gagacgagtt caggagcaga
 780
 catctcaact ccacggacga cgcagacagg atccccctcc aggaggactg gatgaagatg
 840
 aaggtcaagc tgggctccgc gctagggggc ccctacctgg gaggccacct gagaagaaaa
 900
 gatttcatct ggggtcacag acaggatgta cccagtctgg aaggggccgt gaggaagatc
 960
 cgcagcctca tgaagaccca cgggctggac aaggtgtttg tggccacaga tgccgtcaga
 1020
 aaggaatatg aagagctaaa aaagctgtta cccgagatgg tgagggttga acccacgtgg
 1080
 gaggagctgg agctctacaa ggacggaggc gttgcgatta ttgaccagtg gatctgcgca
 1140
 cagccagggt gcctgcccac gtcactgtcg gccgagagcg ggtcgggtgg ctttcaaagg
 1200
 ttcttctgtc ccaagtactc ggtgtcagag cagatggtcg cctgtgttca cagtgggtcat
 1260
 ttccatactg tttgcctcct cgtctgagtc tcctgtagca tctggttcag tgtttccctg
 1320
 ggctgaagtt aattgttcat cttgcccctt tagttctcat gcacagaatt cctccatagc
 1380
 aggtgtgtgg catagctggc ctggtctcag aacctcttct tgtgtcgcac tttcccatca
 1440
 ttcccggttt ctgcccctgt ctgcccctg ccctgagagt tgcccgtgcc ctggacttgg
 1500
 gcatgtcctt gttgctgtgt tgttgagcat ccgtgagcgt ccccgaggcc gggagcgtgg
 1560
 gccctcgtgt gatcattctc gtggggctgc catgagcgtc cccaaggctg ggagcatggg
 1620
 cctcgtgtgt atcgttcttg tggggctgcc gtgagcgtcc ccgaggccgg gagcgtgggc
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 cctcgtgtga tcattctcgt ggggctgccg tgagcgtccc agaggccggg agcgtggggc
 1740
 ctgctgcag tcattcctct ggggttgctg tgggaggtac gcctgggcct ctgttccctc
 1800
 aaagacctgc ctgcccctct gcataggaga tgaaggctgg ggttaggggtg aaacgggttg
 1860
 agttaaatgg aaaatgaaag tagagggaat gatcttccc gtggttagca ctgtgcacac
 1920

gcgtgctct ctgtgggtta gtctgtctct ctctgccc aggaatgctg agcgccctga
 1980
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 2100
 caggatgcag cgctgacttc ttaggtcagg gcggagggtg gcaggagccc agtcacgagc
 2160
 tcacccctgc ttctcagggt tggccttggg attttgactg cgaccttggc ggtgctgtct
 2220
 ccgcagccca ggaagcctgc tgtggggagg ctctgcactg agctctcage ctctgccc
 2280
 cagctgcgcg aagcgctcgg ccagctcac tgaagctgcc ctgcctccgg gccggcgcg
 2340
 cctgctctgg caggcccc tgtgtggggg ggtgagggtc tccccaccag tgctgcaccc
 2400
 cgcagcagca tacaggcctg tgtggcctgc tggccctgtg gctctgtgta cagcgctgtg
 2460
 catgttacat ttgctctgga aacatctctg gggtttgctt gttcacgaag ttcataagt
 2520
 gccgctggag agccagagac cagctgcgca ggagccggag gaacgggcag gccgctgacc
 2580
 tgaggctctg agaaaccct ggagaagggt gtccccacca gccatacag cgtgtgtgtg
 2640
 gagggggcct tgacctccgt gatgtctact gtgcctcagg ataaggaccc gccatgccct
 2700
 ggctagacag tgtgtgggtta gtaggaatct ctcatgttc accatgtgac cccaggagg
 2760
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 2820
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 2880
 cagcaccagg cagagccct cagggcgccg atgtcgaggg cacctgagcg aggggtgcca
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 3000
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 3060
 cccagttctc cctgactctg gaacctctgt gatcctttgc aggttttttt attggcacct
 3120
 cagtctcaac attttctttt cggattcatg aggaaagaga aatcctgggg ttggaccca
 3180
 agacgacgta caacagggtt tgcggagacc aagagaaggc gtgtgagcaa cccaccact
 3240
 ggaagatcac ctactgagga ggatcctcca gggcgctcc ccggaccga caggcgggg
 3300
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 3360
 aggaccgtcc ctgcagggt cccaggccca gaagaggccc cacgcctcta gagctgggct
 3420
 ccgtcctcgg cgttgccagc cgccatggct gatgaagagg ctccgctgct ctccggggcg
 3480
 gcggttgttt tcaggcagcg tctgtgaacc cacagctcgg ttgccagcag tgcccgctg
 3540

gtgaccacaga agcaggagtg tttgtcaggc tcccgtctg gcctttccag ccacctttca
 3600
 tgtcttcata ttttaagtgc attgaggata gatgcaggcg ggtgagctgc cctccgtcag
 3660
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 3720
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 3780
 cctgtgtgtt tcctcctggg acgcgtgcaa ggcagacctg gtgctgcaaa ggaaagggcc
 3840
 tgaggcctca gggagccccg tggagggatg acagttcagg ccctactgct ggacagtcag
 3900
 agcactggga agttttttcag tgacgtctct ggggcactca gtggattgtc ttagggaaac
 3960
 ttgcagctct gtccttcaca ccaggccccg ctggccaccc accctcgccc ccaactggcca
 4020
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 4080
 gctggccgtc cctgccctcg ccccggtctg cagggtgcaca tggggcctcc aggtctgcca
 4140
 ttgcgtattg agaactagaa atgaggaagg acagttacgc taactccaaa aggtctgtcta
 4200
 ggatgagctg ctttatcagg gagctccttg taccatttt acagaaatca ttttaggtc
 4260
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 4320
 gaaggtgcag cagtgcctca ggggtcctca gggtcaggga gccccctca ccctcttggc
 4380
 ccgttacctt ttgtgacttt ccaccatggt gtcgtgtgac cctcagtcag gttggtggg
 4440
 gctgagtcct cactgagcag ccactttcca catctgctag aggaacagt acatggacac
 4500
 ctgtgacaga gagaggacag ttagtgagga gggacagaca gctcttcctt tcggagcctg
 4560
 gctagtctag gacatcacct tgcgtgtgtt tctcaagctt ttaaaattga ccctgaacgt
 4620 cctatggtgt tactcaaagc tgtgcagggt aaatgatgac atatttattc 4680
 tttttccatt tgttctagaa acagtgcctt tttcatcagt tgcattttcc aggtgagag
 4740
 ctgtataaaa cattttggac tgtgaccatg taccttcctt tttaagaaaa ataaactgct
 4800
 ttatggaagt tggtaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaa
 4845

<210> 192

<211> 428

<212> PRT

<213> Homo sapiens

<400> 192

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Pro | Gly | Ala | Met | Ala | Thr | Leu | Ser | Phe | Val | Phe | Leu | Leu | Leu | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Val | Ser | Trp | Pro | Pro | Ala | Ser | Ala | Ser | Gly | Gln | Glu | Phe | Trp | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Gln | Ser | Ala | Ala | Asp | Ile | Leu | Ser | Gly | Ala | Ala | Ser | Arg | Arg | Arg |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | 35 | | | | | 40 | | | | | 45 | | | | | |
| Tyr | Leu | Leu | Tyr | Asp | Val | Asn | Pro | Pro | Glu | Gly | Phe | Asn | Leu | Arg | Arg | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| Asp | Val | Tyr | Ile | Arg | Ile | Ala | Ser | Leu | Leu | Lys | Thr | Leu | Leu | Lys | Thr | | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | | |
| Glu | Glu | Trp | Val | Leu | Val | Leu | Pro | Pro | Trp | Gly | Arg | Leu | Tyr | His | Trp | | |
| | | | | 85 | | | | | 90 | | | | | 95 | | | |
| Gln | Ser | Pro | Asp | Ile | His | Gln | Val | Arg | Ile | Pro | Trp | Ser | Glu | Phe | Phe | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Asp | Leu | Pro | Ser | Leu | Asn | Lys | Asn | Ile | Pro | Val | Ile | Glu | Tyr | Glu | Gln | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Phe | Ile | Ala | Glu | Ser | Gly | Gly | Pro | Phe | Ile | Asp | Gln | Val | Tyr | Val | Leu | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | |
| Gln | Ser | Tyr | Ala | Glu | Gly | Trp | Lys | Glu | Gly | Thr | Trp | Glu | Glu | Lys | Val | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | |
| Asp | Glu | Arg | Pro | Cys | Ile | Asp | Gln | Leu | Leu | Tyr | Ser | Gln | Asp | Lys | His | | |
| | | | | 165 | | | | 170 | | | | | | 175 | | | |
| Glu | Tyr | Tyr | Arg | Gly | Trp | Phe | Trp | Gly | Tyr | Glu | Glu | Thr | Arg | Gly | Leu | | |
| | | | 180 | | | | 185 | | | | | | 190 | | | | |
| Asn | Val | Ser | Cys | Leu | Ser | Val | Gln | Gly | Ser | Ala | Ser | Ile | Val | Ala | Pro | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | |
| Leu | Leu | Leu | Arg | Asn | Thr | Ser | Ala | Arg | Ser | Val | Met | Leu | Asp | Arg | Ala | | |
| | 210 | | | | | 215 | | | | | 220 | | | | | | |
| Glu | Asn | Leu | Leu | His | Asp | His | Tyr | Gly | Gly | Lys | Glu | Tyr | Trp | Asp | Thr | | |
| 225 | | | | 230 | | | | | | 235 | | | | | 240 | | |
| Arg | Arg | Ser | Met | Val | Phe | Ala | Arg | His | Leu | Arg | Glu | Val | Gly | Asp | Glu | | |
| | | | | 245 | | | | | 250 | | | | | 255 | | | |
| Phe | Arg | Ser | Arg | His | Leu | Asn | Ser | Thr | Asp | Asp | Ala | Asp | Arg | Ile | Pro | | |
| | | | 260 | | | | 265 | | | | | | 270 | | | | |
| Phe | Gln | Glu | Asp | Trp | Met | Lys | Met | Lys | Val | Lys | Leu | Gly | Ser | Ala | Leu | | |
| | | 275 | | | | | 280 | | | | | 285 | | | | | |
| Gly | Gly | Pro | Tyr | Leu | Gly | Val | His | Leu | Arg | Arg | Lys | Asp | Phe | Ile | Trp | | |
| | 290 | | | | | 295 | | | | | 300 | | | | | | |
| Gly | His | Arg | Gln | Asp | Val | Pro | Ser | Leu | Glu | Gly | Ala | Val | Arg | Lys | Ile | | |
| 305 | | | | 310 | | | | | | 315 | | | | | 320 | | |
| Arg | Ser | Leu | Met | Lys | Thr | His | Arg | Leu | Asp | Lys | Val | Phe | Val | Ala | Thr | | |
| | | | | 325 | | | | | 330 | | | | | 335 | | | |
| Asp | Ala | Val | Arg | Lys | Glu | Tyr | Glu | Glu | Leu | Lys | Lys | Leu | Leu | Pro | Glu | | |
| | | 340 | | | | | 345 | | | | | 350 | | | | | |
| Met | Val | Arg | Phe | Glu | Pro | Thr | Trp | Glu | Glu | Leu | Glu | Leu | Tyr | Lys | Asp | | |
| | | 355 | | | | | 360 | | | | | 365 | | | | | |
| Gly | Gly | Val | Ala | Ile | Ile | Asp | Gln | Trp | Ile | Cys | Ala | His | Ala | Arg | Cys | | |
| | 370 | | | | | 375 | | | | | 380 | | | | | | |

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<210> 193
<211> 350
<212> DNA
<213> Homo sapiens
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<400> 193
 gccggcgagc tggactgcmc catcatggcc gagcccttcc cccacaccgg cctggccacg
 60
 gcgcagctgt acgacgagcc ctctgctgct gcgctgcggg cgtcgcaccc gctggccgac
 120
 cgtgccagca tcagccccga ggaggtcaag ggcgagacca tgttgatggt gggcacgggc
 180
 ccctgggttcc cccggggccc cggtgggggt ttggcccggg tttggcgcgt ttctccagcg
 240
 ccgttaaggg catacgccgc agtttcgagg gctcgtcgtt ggagaccatc aagcacatcg
 300
 tggcttcggg catggcgtga cggtgggtgc gcagctgtcc gtgccgcgcg
 350

<210> 194
 <211> 116
 <212> PRT
 <213> Homo sapiens

<400> 194
 Ala Gly Glu Leu Asp Cys Ala Ile Met Ala Glu Pro Phe Pro Asp Thr
 1 5 10 15
 Gly Leu Ala Thr Ala Gln Leu Tyr Asp Glu Pro Phe Val Val Ala Leu
 20 25 30
 Arg Ala Ser His Pro Leu Ala Asp Arg Ala Ser Ile Ser Pro Glu Glu
 35 40 45
 Val Lys Gly Glu Thr Met Leu Met Leu Gly Thr Gly Pro Trp Phe Pro
 50 55 60
 Arg Ala Arg Gly Gly Gly Leu Ala Arg Ile Trp Arg Val Ser Pro Ala
 65 70 75 80
 Pro Leu Arg Ala Tyr Ala Ala Val Ser Arg Ala Arg Arg Trp Arg Pro
 85 90 95
 Ser Ser Thr Ser Trp Leu Arg Ala Trp Arg Asp Gly Gly Ala Ala Ala
 100 105 110
 Val Arg Ala Ala
 115

<210> 195
 <211> 495
 <212> DNA
 <213> Homo sapiens

<400> 195
 acgcgtgaac gcgacggctt ggcgatcgga ggcgtcggcc ccgtcgttga gtgggcccgtt
 60
 gaaatgggtc gcttcgacga aagcgagact ctgcaccgcc ttgcatcggg cgtccttgaa
 120
 ccagaacttg gcgacgattt ggccgccgct ctgctcgatt ctcatcgggt tgctgtcatc
 180
 agcgagggat cgaactggct tgccctcgcta cccgtgatcg taggtcgcaa cacggaacag
 240
 tttcgcagca taccagacct tgcccgcgac cggatcgaca aactgcacca gttgagccat
 300

cgcgaaatag cacgaaatcg cgagctcctg cgtgcccgcg ctgcgtcggg gcaggtgcgg
 360
 cactgccacg gcgacgcaca cctcggcaac atcgtcatga ttgacggcaa gccggtcctg
 420
 ttcgacgcga tcgaatttga tcctgatata gcgacaacgg atgtgctgta cgatttcgcg
 480
 ttccctctga tggat
 495

<210> 196
 <211> 165
 <212> PRT
 <213> Homo sapiens

<400> 196
 Thr Arg Glu Arg Asp Gly Leu Ala Ile Gly Gly Val Gly Pro Val Val
 1 5 10 15
 Glu Trp Ala Val Glu Met Val Arg Phe Asp Glu Ser Glu Thr Leu Asp
 20 25 30
 Arg Leu Ala Ser Gly Val Leu Glu Pro Glu Leu Gly Asp Asp Leu Ala
 35 40 45
 Ala Val Leu Leu Asp Ser His Arg Val Ala Val Ile Ser Glu Gly Ser
 50 55 60
 Asn Trp Leu Ala Ser Leu Pro Val Ile Val Gly Arg Asn Thr Glu Gln
 65 70 75 80
 Phe Arg Ser Ile Pro Asp Leu Ala Arg Asp Arg Ile Asp Lys Leu His
 85 90 95
 Gln Leu Ser His Arg Glu Ile Ala Arg Asn Arg Glu Leu Leu Arg Ala
 100 105 110
 Arg Ala Ala Ser Gly Gln Val Arg His Cys His Gly Asp Ala His Leu
 115 120 125
 Gly Asn Ile Val Met Ile Asp Gly Lys Pro Val Leu Phe Asp Ala Ile
 130 135 140
 Glu Phe Asp Pro Asp Ile Ala Thr Thr Asp Val Leu Tyr Asp Phe Ala
 145 150 155 160
 Phe Pro Leu Met Asp
 165

<210> 197
 <211> 402
 <212> DNA
 <213> Homo sapiens

<400> 197
 caagcaatgc ttgacgcagt tgttgaatac ttaccagcac cgactgatat tccagcaatc
 60
 aaaggtatca atccagatga aactgaaggt gaacgtcacg caagcgatga tgagccattc
 120
 tcttcattag cattcaaaat tgcaactgac ccattcgtag gtaacttaac cttcttccgt
 180
 gtgtactcag gtgtaattaa ctctggtgat acagtattaa actctgtacg tcaaaaaacgt
 240
 gaacgttttg gtcgtatcgt acagatgcac gctaataaac gtgaagaaat taaagaagtt
 300

cgtgcgggcg atatcgctgc agcaatcggc ttaaaagatg taactacggg tgaaccatta
 360
 tgtgctgtcg atgcaccaat cattcttgag cgtatggaat tc
 402

<210> 198

<211> 134

<212> PRT

<213> Homo sapiens

<400> 198

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Ala | Met | Leu | Asp | Ala | Val | Val | Glu | Tyr | Leu | Pro | Ala | Pro | Thr | Asp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ile | Pro | Ala | Ile | Lys | Gly | Ile | Asn | Pro | Asp | Glu | Thr | Glu | Gly | Glu | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| His | Ala | Ser | Asp | Asp | Glu | Pro | Phe | Ser | Ser | Leu | Ala | Phe | Lys | Ile | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Thr | Asp | Pro | Phe | Val | Gly | Asn | Leu | Thr | Phe | Phe | Arg | Val | Tyr | Ser | Gly |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Val | Ile | Asn | Ser | Gly | Asp | Thr | Val | Leu | Asn | Ser | Val | Arg | Gln | Lys | Arg |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Glu | Arg | Phe | Gly | Arg | Ile | Val | Gln | Met | His | Ala | Asn | Lys | Arg | Glu | Glu |
| | | | | 85 | | | | 90 | | | | | 95 | | |
| Ile | Lys | Glu | Val | Arg | Ala | Gly | Asp | Ile | Ala | Ala | Ala | Ile | Gly | Leu | Lys |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asp | Val | Thr | Thr | Gly | Glu | Pro | Leu | Cys | Ala | Val | Asp | Ala | Pro | Ile | Ile |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Leu | Glu | Arg | Met | Glu | Phe | | | | | | | | | | |
| | | | | | | | | | | | | | | | 130 |

<210> 199

<211> 507

<212> DNA

<213> Homo sapiens

<400> 199

acgcgtgaag tcgtgcatag atcgggtgtga catagagaag cctccgaccc aagctgcgta
 60
 tatcgcaaaa agaccaagcg accctggacg ttctagacag aactctgcta cgaggcctga
 120
 caatagtga atccccgaga acccagctat ggaaggggtt ccagatgctc gaaggcctgt
 180
 cataccagag gttagggttaa actgtatgga gactttcgag gtgaaagttg actcgccggt
 240
 aaagcctgct cctaaagagg atttagatct gatagatcta tcttcagatt caacctcggg
 300
 gcttgaaaaa cactctatac tctcaacctc cgacagcgac tctcttgat ttgagcctct
 360
 tccctctctc agaatagtcg agagtgcga agaagaggag acgatgaacc aaggcgatga
 420
 cggccctctc ggtaaaaatg ctgcctcttc tccctccatc cccagccatc cctccgtcct
 480
 cagcctgagc acagctccgc ttgtaca
 507

<210> 200
 <211> 153
 <212> PRT
 <213> Homo sapiens

<400> 200
 Met Glu Gly Glu Glu Ala Ala Phe Leu Pro Glu Gly Pro Ser Ser Pro
 1 5 10 15
 Trp Phe Ile Val Ser Ser Ser Ser Ser Leu Ser Thr Ile Leu Arg Glu
 20 25 30
 Gly Arg Gly Ser Asn Thr Arg Glu Ser Leu Ser Glu Val Glu Ser Ile
 35 40 45
 Glu Cys Phe Ser Gly Pro Glu Val Glu Ser Glu Asp Arg Ser Ile Arg
 50 55 60
 Ser Lys Ser Ser Leu Gly Ala Gly Phe Thr Gly Glu Ser Thr Phe Thr
 65 70 75 80
 Ser Lys Val Ser Ile Gln Phe Asn Leu Thr Ser Gly Met Thr Gly Leu
 85 90 95
 Arg Ala Ser Gly Asn Pro Ser Ile Ala Gly Phe Ser Gly Ile Ser Leu
 100 105 110
 Leu Ser Gly Leu Val Ala Glu Phe Cys Leu Glu Arg Pro Gly Ser Leu
 115 120 125
 Gly Leu Cys Ala Ile Tyr Ala Ala Trp Val Gly Gly Phe Ser Met Ser
 130 135 140
 His Arg Ser Met His Asp Phe Thr Arg
 145 150

<210> 201
 <211> 527
 <212> DNA
 <213> Homo sapiens

<400> 201
 gatgtggcta ttatccctgt ttcccaggtg agaaacaggg tcagtgatag agctgggatg
 60
 tgtgcctgca ggctcaccag ccagtcacct cctcaccaag gatgatgttc tccgtgggtga
 120
 gctggtcctt ggtctcctgg aactcgtggc gcacctgggc cagctgcgcc tcgaaggcat
 180
 ccttctccat ctctttggct agctgcaagt tctggagctg ctctgtgagg tctgtgatct
 240
 catccacctg ctggttgagc gtgcgcttga ggaaggccac aatctccttc ttgttattgg
 300
 ccagctgctc aaactcctgg cggaacatct tctcctgcac agccagctca tcccacttcc
 360
 gctggtaccg ggctagccgg tctccaggt ctcgatctg gatgtggtag aactccttca
 420
 tctccttggc cagaggcggc tccacggcca ccaccggctc cttcttgccc cctttcttct
 480
 tgacttcaag ctcttgctt gccttgetca cactcttttt gggaggc
 527

<210> 202

<211> 70
 <212> PRT
 <213> Homo sapiens

<400> 202
 Gly Arg Pro Gln Ser Pro Ser Cys Tyr Trp Pro Ala Ala Gln Thr Pro
 1 5 10 15
 Gly Gly Thr Ser Ser Pro Ala Gln Pro Ala His Pro Thr Ser Ala Gly
 20 25 30
 Thr Gly Leu Ala Gly Pro Pro Gly Leu Gly Ser Gly Cys Gly Arg Thr
 35 40 45
 Pro Ser Ser Pro Trp Pro Glu Ala Ala Pro Arg Pro Pro Pro Ala Pro
 50 55 60
 Ser Cys Pro Leu Ser Ser
 65 70

<210> 203
 <211> 304
 <212> DNA
 <213> Homo sapiens

<400> 203
 ngtgcaccgg tggatcatgga caacgccgcc tacgtggtct acacctcggg atccaccggc
 60
 cgacccaagg gagttgtcgt caccacacacc ggactcgaca gcttcgcact cgaccagcag
 120
 cgtcgattcc acgcagatca ccactctcga accctgcact tcgccacccc cagcttcgac
 180
 ggagccgtct tcgagtacct gcaggcattc ggtgtcggag ccaccatggt gatcgtcccg
 240
 accgacatct acggcgggcg cgaactggca agtctcatcc gccgcgaaca cgtcactcac
 300
 gcgt
 304

<210> 204
 <211> 101
 <212> PRT
 <213> Homo sapiens

<400> 204
 Xaa Ala Pro Val Val Met Asp Asn Ala Ala Tyr Val Val Tyr Thr Ser
 1 5 10 15
 Gly Ser Thr Gly Arg Pro Lys Gly Val Val Val Thr His Thr Gly Leu
 20 25 30
 Asp Ser Phe Ala Leu Asp Gln Gln Arg Arg Phe His Ala Asp His His
 35 40 45
 Ser Arg Thr Leu His Phe Ala Thr Pro Ser Phe Asp Gly Ala Val Phe
 50 55 60
 Glu Tyr Leu Gln Ala Phe Gly Val Gly Ala Thr Met Val Ile Val Pro
 65 70 75 80
 Thr Asp Ile Tyr Gly Gly Ala Glu Leu Ala Ser Leu Ile Arg Arg Glu
 85 90 95
 His Val Thr His Ala

100

<210> 205
 <211> 356
 <212> DNA
 <213> Homo sapiens

<400> 205
 nngaattcag caatgataac tggctcaatt gaaggtaaga caacaattga ggggaattaat
 60
 gcacaattaa atacagtgtt aactttatctt tcaccacaat caaaagataa agattttaatc
 120
 atgccagatc aacaagaaga aatagatatt ctgattgcaa ccgactgtat ttcagaagga
 180
 cagaacttac aagattgtga ttacttaata aactatgaca ttcattggaa tccagttcgt
 240
 atcattcaaa gatttggacg gattgatcga attgggtcga agaataaatg tgtacaatta
 300
 gttaactttt ggccagatat tacattagat gaatatattg atctaaaggg acgcgt
 356

<210> 206
 <211> 118
 <212> PRT
 <213> Homo sapiens

<400> 206
 Xaa Asn Ser Ala Met Ile Thr Gly Ser Ile Glu Gly Lys Thr Thr Ile
 1 5 10 15
 Glu Gly Ile Asn Ala Gln Leu Asn Thr Val Leu Thr Leu Phe Ser Pro
 20 25 30
 Gln Ser Lys Asp Lys Asp Leu Ile Met Pro Asp Gln Gln Glu Ile
 35 40 45
 Asp Ile Leu Ile Ala Thr Asp Cys Ile Ser Glu Gly Gln Asn Leu Gln
 50 55 60
 Asp Cys Asp Tyr Leu Ile Asn Tyr Asp Ile His Trp Asn Pro Val Arg
 65 70 75 80
 Ile Ile Gln Arg Phe Gly Arg Ile Asp Arg Ile Gly Ser Lys Asn Lys
 85 90 95
 Cys Val Gln Leu Val Asn Phe Trp Pro Asp Ile Thr Leu Asp Glu Tyr
 100 105 110
 Ile Asp Leu Lys Gly Arg
 115

<210> 207
 <211> 324
 <212> DNA
 <213> Homo sapiens

<400> 207
 acgcgtgcac tgtgtgtatg catggtaacg tacacgtgtg cactgtgtgt ggtgtgcatg
 60
 catggtgtgt gcacgtgtng cactgtgtgt ggatgcatgg taatgtgcac gtgtgcactg
 120

tgtgtggtgt gtatgcatgg tgtgtgcacg tgtgcactgt gtgtgtgtgt atgcatgtgt
 180
 gtgcacatgt gcactgtgtg gtgtgtatgc atggtgtgtg cacgtgtgca ctgtgtatgc
 240
 atgngtgtgt gcatgtgtgc actgtgtatg catagtgtgc acgtgtgcac tgtgtggtgt
 300
 gtatgcatgg taatgtgcac gtgt
 324

<210> 208
 <211> 108
 <212> PRT
 <213> Homo sapiens

<400> 208
 Thr Arg Ala Leu Cys Val Cys Met Val Thr Tyr Thr Cys Ala Leu Cys
 1 5 10 15
 Val Val Cys Met His Gly Val Cys Thr Cys Xaa Thr Val Cys Gly Cys
 20 25 30
 Met Val Met Cys Thr Cys Ala Leu Cys Val Val Cys Met His Gly Val
 35 40 45
 Cys Thr Cys Ala Leu Cys Val Cys Val Cys Met Cys Val His Met Cys
 50 55 60
 Thr Val Trp Cys Val Cys Met Val Cys Ala Arg Val His Cys Val Cys
 65 70 75 80
 Met Xaa Val Cys Met Cys Ala Leu Cys Met His Ser Val His Val Cys
 85 90 95
 Thr Val Trp Cys Val Cys Met Val Met Cys Thr Cys
 100 105

<210> 209
 <211> 168
 <212> DNA
 <213> Homo sapiens

<400> 209
 nnctccagag gttatgaggt tggaagcccg gtttttttca ggtgcagaaa aggetaccat
 60
 attcaagggt ccacgactcg cacctgcctt gccaatata catggagtgg gatacagacc
 120
 gaatgtatac ctcatgcctg cagacagcca gaaaccccg cacacgcg
 168

<210> 210
 <211> 56
 <212> PRT
 <213> Homo sapiens

<400> 210
 Xaa Ser Arg Gly Tyr Glu Val Gly Ser Pro Val Phe Phe Arg Cys Arg
 1 5 10 15
 Lys Gly Tyr His Ile Gln Gly Ser Thr Thr Arg Thr Cys Leu Ala Asn
 20 25 30
 Leu Thr Trp Ser Gly Ile Gln Thr Glu Cys Ile Pro His Ala Cys Arg

35 40 45
 Gln Pro Glu Thr Pro Ala His Ala
 50 55

<210> 211
 <211> 354
 <212> DNA
 <213> Homo sapiens

<400> 211
 tacatgggct ttgacacagt ggtggctgaa gctgcactaa ggggtgtttgg aggcaatgtc
 60
 cagctggcag ctcagaccct tgcacaccat ggaggaagcc tcccaccga cctgcagttc
 120
 tcaggagagg actcctcccc cacaccgtcc acatccccat ctgactctgc agggacctct
 180
 agtgcctcga cagatgaaga catggagacg gaggctgtca acgaaatcct ggaggacatt
 240
 ccggagcacg aggaggacta cctggactcc acgctggagg atgaagaagt cattattgct
 300
 gaatacttgt cctgcgttga aagtataagt tctgccngca aagaacaact gatc
 354

<210> 212
 <211> 118
 <212> PRT
 <213> Homo sapiens

<400> 212
 Tyr Met Gly Phe Asp Thr Val Val Ala Glu Ala Ala Leu Arg Val Phe
 1 5 10 15
 Gly Gly Asn Val Gln Leu Ala Ala Gln Thr Leu Ala His His Gly Gly
 20 25 30
 Ser Leu Pro Pro Asp Leu Gln Phe Ser Gly Glu Asp Ser Ser Pro Thr
 35 40 45
 Pro Ser Thr Ser Pro Ser Asp Ser Ala Gly Thr Ser Ser Ala Ser Thr
 50 55 60
 Asp Glu Asp Met Glu Thr Glu Ala Val Asn Glu Ile Leu Glu Asp Ile
 65 70 75 80
 Pro Glu His Glu Glu Asp Tyr Leu Asp Ser Thr Leu Glu Asp Glu Glu
 85 90 95
 Val Ile Ile Ala Glu Tyr Leu Ser Cys Val Glu Ser Ile Ser Ser Ala
 100 105 110
 Xaa Lys Glu Gln Leu Ile
 115

<210> 213
 <211> 669
 <212> DNA
 <213> Homo sapiens

<400> 213
 attgcccaat ctcagagtgt ccaggaaagc ctggagagcc tggtgcagtc tattggggaa
 60

gttgaacaaa acctggaagg gaaacaggtg tcatcactct catcaggagt catccaggaa
 120
 gccttagcca caaatatgaa attgaagcag gacattgctc ggcaaaagag cagcttggag
 180
 gccacccgtg agatggtgac ccgattcatg gagacagcag acagtactac agcagcagtg
 240
 ctgcagggca aactggcaga ggtgagccag cggttcgaac agctctgtct acagcagcaa
 300
 gaaaaggaga gctccctaaa gaagcttcta ccccaggcag agatgtttga acacctctct
 360
 ggtaagctgc agcagttcat ggaaaacaaa agtcggatgc tggcctctgg aaatcagcca
 420
 gatcaagata ttacacattt cttccaacag atccaggagc tcaatttgga aatggaagac
 480
 caacaggaga acctagatac tcttgagcac ctggtcactg aactgagctc ttgtggcttt
 540
 gcgctggact tgtgccagca tcaggacagg gtacagaatc taagaaaaga cttcacagag
 600
 ctacagaaga cagttaaaga gagagagaaa gatgcatcat cttgccagga acagttggat
 660
 gaattccgg
 669

<210> 214
 <211> 223
 <212> PRT
 <213> Homo sapiens

<400> 214
 Ile Ala Gln Ser Gln Ser Val Gln Glu Ser Leu Glu Ser Leu Leu Gln
 1 5 10 15
 Ser Ile Gly Glu Val Glu Gln Asn Leu Glu Gly Lys Gln Val Ser Ser
 20 25 30
 Leu Ser Ser Gly Val Ile Gln Glu Ala Leu Ala Thr Asn Met Lys Leu
 35 40 45
 Lys Gln Asp Ile Ala Arg Gln Lys Ser Ser Leu Glu Ala Thr Arg Glu
 50 55 60
 Met Val Thr Arg Phe Met Glu Thr Ala Asp Ser Thr Thr Ala Ala Val
 65 70 75 80
 Leu Gln Gly Lys Leu Ala Glu Val Ser Gln Arg Phe Glu Gln Leu Cys
 85 90 95
 Leu Gln Gln Gln Glu Lys Glu Ser Ser Leu Lys Lys Leu Leu Pro Gln
 100 105 110
 Ala Glu Met Phe Glu His Leu Ser Gly Lys Leu Gln Gln Phe Met Glu
 115 120 125
 Asn Lys Ser Arg Met Leu Ala Ser Gly Asn Gln Pro Asp Gln Asp Ile
 130 135 140
 Thr His Phe Phe Gln Gln Ile Gln Glu Leu Asn Leu Glu Met Glu Asp
 145 150 155 160
 Gln Gln Glu Asn Leu Asp Thr Leu Glu His Leu Val Thr Glu Leu Ser
 165 170 175
 Ser Cys Gly Phe Ala Leu Asp Leu Cys Gln His Gln Asp Arg Val Gln
 180 185 190
 Asn Leu Arg Lys Asp Phe Thr Glu Leu Gln Lys Thr Val Lys Glu Arg

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 195 | | 200 | | 205 | | | | | | | | | |
| Glu | Lys | Asp | Ala | Ser | Ser | Cys | Gln | Glu | Gln | Leu | Asp | Glu | Phe | Arg |
| | 210 | | | | | 215 | | | | | 220 | | | |

<210> 215

<211> 814

<212> DNA

<213> Homo sapiens

<400> 215

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aaatttcgta cccgctccgg cacagtacga gcccttgacg atgtgagcct ggctattaag
60
agagggttcca tctcagccgt tatcgggcac tccggagccg gcaaattccac cctgggttcgc
120
ctcatcaacg gattagagac tcccacgcgt ggccgcgtct tggtagacgg caccgacgtc
180
tcgcagctct cggacaaaagc gatgcgcccg ctacgcgcag acatcgggat gatcttccaa
240
cagttcaacc tattcggctc aaggaccatc tacgacaacg ttgcctatcc actcaagctg
300
gctcattgga agaaagcaga cgagaagaag cgcgtcaccg aattgctgag cttcgtcggg
360
ttgacgagca aagcctggga ccatccagac cagctctcgg gcggacagaa acagcggggt
420
ggtattgccc gagcgctagc aactaaacca tcgattttgt tggctgacga gtccacctcg
480
gcgctggatc cagaaacgac agctgatgtc ctatccctgc tcaagcgggt caatgcggaa
540
ctaggggtga cggtcgtcgt catcaccac gagatggagg tcgtccgctc gattgcccag
600
caggtctcgg tactagcagc tggccatctc gtcgagtctg gaagcgcccg ccaggtcttc
660
gtcatccac agtcagagac caccacgcgt ttcctggcga cgattatcgg ccagcaccgc
720
agtggggagg aacaggcacg gttgcagtcg gaaaaccag atgcacgact cgtcgacgtc
780
agttcggtgg ccagtcactc gttcggtgac gcgt
814

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<210> 216

<211> 271

<212> PRT

<213> Homo sapiens

<400> 216

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Phe | Arg | Thr | Arg | Ser | Gly | Thr | Val | Arg | Ala | Leu | Asp | Asp | Val | Ser |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Leu | Ala | Ile | Lys | Arg | Gly | Ser | Ile | Ser | Ala | Val | Ile | Gly | His | Ser | Gly |
| | | | 20 | | | | 25 | | | | | 30 | | | |
| Ala | Gly | Lys | Ser | Thr | Leu | Val | Arg | Leu | Ile | Asn | Gly | Leu | Glu | Thr | Pro |
| | | 35 | | | | 40 | | | | 45 | | | | | |
| Thr | Arg | Gly | Arg | Val | Leu | Val | Asp | Gly | Thr | Asp | Val | Ser | Gln | Leu | Ser |
| | 50 | | | | 55 | | | | 60 | | | | | | |
| Asp | Lys | Ala | Met | Arg | Pro | Leu | Arg | Ala | Asp | Ile | Gly | Met | Ile | Phe | Gln |

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|
| 65 | | | | | 70 | | | | | 75 | | | | 80 |
| Gln | Phe | Asn | Leu | Phe | Gly | Ser | Arg | Thr | Ile | Tyr | Asp | Asn | Val | Ala Tyr |
| | | | | 85 | | | | | 90 | | | | | 95 |
| Pro | Leu | Lys | Leu | Ala | His | Trp | Lys | Lys | Ala | Asp | Glu | Lys | Lys | Arg Val |
| | | | 100 | | | | | 105 | | | | | 110 | |
| Thr | Glu | Leu | Leu | Ser | Phe | Val | Gly | Leu | Thr | Ser | Lys | Ala | Trp | Asp His |
| | | | 115 | | | | 120 | | | | | 125 | | |
| Pro | Asp | Gln | Leu | Ser | Gly | Gly | Gln | Lys | Gln | Arg | Val | Gly | Ile | Ala Arg |
| | | | 130 | | | 135 | | | | | 140 | | | |
| Ala | Leu | Ala | Thr | Lys | Pro | Ser | Ile | Leu | Leu | Ala | Asp | Glu | Ser | Thr Ser |
| 145 | | | | | 150 | | | | | 155 | | | | 160 |
| Ala | Leu | Asp | Pro | Glu | Thr | Thr | Ala | Asp | Val | Leu | Ser | Leu | Leu | Lys Arg |
| | | | 165 | | | | | 170 | | | | | 175 | |
| Val | Asn | Ala | Glu | Leu | Gly | Val | Thr | Val | Val | Val | Ile | Thr | His | Glu Met |
| | | | 180 | | | | 185 | | | | | 190 | | |
| Glu | Val | Val | Arg | Ser | Ile | Ala | Gln | Gln | Val | Ser | Val | Leu | Ala | Ala Gly |
| | | | 195 | | | | 200 | | | | | 205 | | |
| His | Leu | Val | Glu | Ser | Gly | Ser | Ala | Arg | Gln | Val | Phe | Ala | His | Pro Gln |
| | | | 210 | | | 215 | | | | | 220 | | | |
| Ser | Glu | Thr | Thr | Gln | Arg | Phe | Leu | Ala | Thr | Ile | Ile | Gly | Gln | His Pro |
| 225 | | | | | 230 | | | | | 235 | | | | 240 |
| Ser | Gly | Glu | Glu | Gln | Ala | Arg | Leu | Gln | Ser | Glu | Asn | Pro | Asp | Ala Arg |
| | | | 245 | | | | | 250 | | | | | 255 | |
| Leu | Val | Asp | Val | Ser | Ser | Val | Ala | Ser | His | Ser | Phe | Gly | Asp | Ala |
| | | | 260 | | | | | 265 | | | | | 270 | |

<210> 217

<211> 500

<212> DNA

<213> Homo sapiens

<400> 217

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nnacgcgtcg cgatgaaaga ggcgctgaaa ggtgccatcc agattccaac agtgactttt
60
agctctgaga agtccaatac tacagccctg gctgagttcg gaaaatacat tcataaagtc
120
tttctacag tggtcagcac cagctttatc cagcatgaag tcgtggaaga gtatagccac
180
ctgttcacta tccaaggctc ggaccccgagc ttgcagccct acctgctgat ggctcacttt
240
gatgtggtgc ctgcccctga agaaggctgg gaggtgcccc cattctcttg gttggagcgt
300
gatggcgtca tctatggttg gggcacactg gacgacaaga actctgtgat ggcattactg
360
caggccttg agctcctgct gatcaggaag tacatcccc gaagatcttt cttcattttt
420
ctgggccatg atgaggagtc atcagggaca ggggctcaga ggatctcagc cctgctacag
480
tcaaggggcg tccagctagc
500

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<210> 218

<211> 166

<212> PRT

<213> Homo sapiens

<400> 218

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Xaa Arg Val Ala Met Lys Glu Ala Leu Lys Gly Ala Ile Gln Ile Pro
 1           5           10           15
Thr Val Thr Phe Ser Ser Glu Lys Ser Asn Thr Thr Ala Leu Ala Glu
 20           25           30
Phe Gly Lys Tyr Ile His Lys Val Phe Pro Thr Val Val Ser Thr Ser
 35           40           45
Phe Ile Gln His Glu Val Val Glu Glu Tyr Ser His Leu Phe Thr Ile
 50           55           60
Gln Gly Ser Asp Pro Ser Leu Gln Pro Tyr Leu Leu Met Ala His Phe
 65           70           75           80
Asp Val Val Pro Ala Pro Glu Glu Gly Trp Glu Val Pro Pro Phe Ser
 85           90           95
Gly Leu Glu Arg Asp Gly Val Ile Tyr Gly Trp Gly Thr Leu Asp Asp
100           105           110
Lys Asn Ser Val Met Ala Leu Leu Gln Ala Leu Glu Leu Leu Leu Ile
115           120           125
Arg Lys Tyr Ile Pro Arg Arg Ser Phe Phe Ile Ser Leu Gly His Asp
130           135           140
Glu Glu Ser Ser Gly Thr Gly Ala Gln Arg Ile Ser Ala Leu Leu Gln
145           150           155           160
Ser Arg Gly Val Gln Leu
165

```

<210> 219

<211> 361

<212> DNA

<213> Homo sapiens

<400> 219

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acgcgttgaa acgggtatat tggggatgac gccgctgtgc aatatgcgca aggccataca
60
caaggtccgc acgctcccat gtccctcggt ttcgacagtt cttttgcgcc gcattatggc
120
gaagccgtcg agattgcgcc tgatatcaag cgcacacgg tcaacaaccc cagccccttc
180
acttttttcg gcaccaacag ttatctgata ggccgcgata cgctggcatt gatcgatccc
240
ggtcgcttg acgaggcca tcacggcg ctgctgcgtg ccattgccgg ccggccggtc
300
agccatatct ttgtcagcca cacacaccgg gaccactcgc cagtcgcgac ggttttgaaa
360
g
361

```

<210> 220

<211> 102

<212> PRT

<213> Homo sapiens

<400> 220

```

Met Ala Asp Arg Pro Ala Gly Asn Gly Thr Gln Gln Arg Arg Val Met

```

```

      1           5           10           15
Gly Leu Val Lys Arg Thr Gly Ile Asp Gln Cys Gln Arg Ile Ala Ala
      20           25           30
Asp Gln Ile Thr Val Gly Ala Glu Lys Ser Glu Gly Ala Gly Val Val
      35           40           45
Asp Arg Asp Ala Leu Asp Ile Arg Arg Asn Leu Asp Gly Phe Ala Ile
      50           55           60
Met Arg Arg Lys Arg Thr Val Glu Asn Glu Gly His Gly Ser Val Arg
      65           70           75           80
Thr Leu Cys Met Ala Leu Arg Ile Leu His Ser Gly Val Ile Pro Asn
      85           90           95
Ile Pro Val Ser Thr Arg
      100

```

<210> 221
 <211> 401
 <212> DNA
 <213> Homo sapiens

```

<400> 221
agatctctgt gtcgtcggct gcaaagagga tgagcccaga tgcatatcag gggctccctc
60
ccacatccca cctgctcggg cagcccacgg cagcccaca ctgctgcagc acacctcgct
120
gcagctctgg ttcctcctca gaaatatccc tgccaccctg ctaagccttg gccaacactg
180
caccctgtcc caatgcggct ccagtgacca cacccccagg gcataccctc ctacagagca
240
ttccccaaaa aggctagagt agacaccagc ctgctccgta gggggcctcc accccattct
300
ccaaggcctc caccagggga cgcttggtga accagcatcc aggcctggcc cacctccctg
360
ctcagagtcc atgttctgtg acaagggtgg caactgggat t
401

```

<210> 222
 <211> 124
 <212> PRT
 <213> Homo sapiens

```

<400> 222
Met Asp Ser Glu Gln Gly Gly Gly Pro Gly Leu Asp Ala Gly Ser Pro
      1           5           10           15
Gly Val Pro Gly Trp Arg Pro Trp Arg Met Gly Trp Arg Pro Pro Thr
      20           25           30
Glu Gln Ala Gly Val Tyr Ser Ser Leu Phe Trp Glu Cys Ser Val Gly
      35           40           45
Gly Tyr Ala Leu Gly Val Trp Ser Leu Glu Pro His Trp Asp Arg Val
      50           55           60
Gln Cys Trp Pro Arg Leu Ser Arg Val Ala Gly Ile Phe Leu Arg Arg
      65           70           75           80
Asn Gln Ser Cys Ser Glu Val Cys Cys Ser Ser Val Gly Leu Pro Trp
      85           90           95
Ala Ala Arg Ala Gly Gly Met Trp Glu Gly Ala Pro Asp Met His Leu

```

100 105 110
 Gly Ser Ser Ser Leu Gln Pro Thr Thr Gln Arg Ser
 115 120

<210> 223
 <211> 331
 <212> DNA
 <213> Homo sapiens

<400> 223
 tcatgaaatc tgtgggcagt gaccaggag ggtatgggca ggcccaacca ggttgggtgtg
 60
 cccttgaagc cccacagacc tgccagggca gcagggcagt tgggagccgg agaacctgag
 120
 aaccaagcca ggctgcatgc aggaggctgg cacgtgaacg ctgcagggtgt tgccgggcagc
 180
 cgtgggtgctt ggcagatagt gttcgacccc cnaggacctt cttgctgggc agccagtc
 240
 aaaagctggt cccgcttaag ccacccccac cgccttggcc acacctggca catgggtgaa
 300
 gcaagggcat ttcccggggc ttctgttcc c
 331

<210> 224
 <211> 103
 <212> PRT
 <213> Homo sapiens

<400> 224
 Met Pro Leu Leu His Pro Cys Ala Arg Cys Gly Gln Gly Gly Gly Gly
 1 5 10 15
 Gly Leu Ser Gly Asn Ser Phe Trp Thr Gly Leu Pro Ser Lys Lys Val
 20 25 30
 Leu Gly Gly Arg Thr Leu Ser Ala Arg His His Gly Cys Arg Gln His
 35 40 45
 Leu Gln Arg Ser Arg Ala Ser Leu Leu His Ala Ala Trp Leu Gly Ser
 50 55 60
 Gln Val Leu Arg Leu Pro Thr Ala Leu Leu Pro Trp Gln Val Cys Gly
 65 70 75 80
 Ala Ser Arg Ala His Gln Pro Gly Trp Ala Cys Pro Tyr Pro Pro Gly
 85 90 95
 Ser Leu Pro Thr Asp Phe Met
 100

<210> 225
 <211> 339
 <212> DNA
 <213> Homo sapiens

<400> 225
 tgatcacggg cgtgagccac cagcccagca tcccttgctt ttcattcgca cctccacctc
 60
 cagaatgacc ctcattccct cctgcacaga cggtagacgc agtaactcct acaaacacca
 120

ccagactgat cttcaagagc agaggaactc ccaatcacga ttccaccccc gccgggctct
 180
 caaatcctcc agggctgcct gctatggggg agggaggcac actttgcttg gctctcaagg
 240
 cctcagccag ccgggtccaa accaactccc agcctggcct caccatccca ccgccaaacc
 300
 tttgctcaca ctggcccttc ttcttggaac atgggcctn
 339

<210> 226

<211> 91

<212> PRT

<213> Homo sapiens

<400> 226

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Thr | Leu | Ile | Pro | Ser | Cys | Thr | Asp | Gly | Asp | Ser | Ser | Asn | Ser | Tyr |
| 1 | | | | 5 | | | | | 10 | | | | 15 | | |
| Lys | His | His | Gln | Thr | Asp | Leu | Gln | Glu | Gln | Arg | Asn | Ser | Gln | Ser | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Phe | His | Pro | Arg | Arg | Ala | Leu | Lys | Ser | Ser | Arg | Ala | Ala | Cys | Tyr | Gly |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Gly | Gly | Arg | His | Thr | Leu | Leu | Gly | Ser | Gln | Gly | Leu | Ser | Gln | Pro | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Pro | Asn | Gln | Leu | Pro | Ala | Trp | Pro | His | His | Pro | Thr | Ala | Lys | Pro | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Leu | Thr | Leu | Ala | Pro | Leu | Pro | Gly | Thr | Trp | Ala | | | | | |
| | | | | 85 | | | | | 90 | | | | | | |

<210> 227

<211> 353

<212> DNA

<213> Homo sapiens

<400> 227

gtcgaccctc tcgattgtgg cgaactccat ggctgctgcg ggctgcgta ggctctcgag
 60
 tagctcgacg tcgggttcgc gagggctcgc agcgtggcca tgctgcttct tggatgggtc
 120
 gggcaactcc tcgggggatt cgagcagttc ttggcgcacc tgctctggcg tcatcccgga
 180
 ggccaggccg acaagtgctg cctcctgcc cccgctgagc gacgctgcca tgttgagtac
 240
 ggcgctcttc ctgggtcaggg cgagcgcggg atcgaccagg ttggcgtcca ggccgagaga
 300
 cagcatgtct gctcagtcgc ggtgatgact ggagtggcgg tctcctgcac ggg
 353

<210> 228

<211> 102

<212> PRT

<213> Homo sapiens

<400> 228

Met Leu Ser Leu Gly Leu Asp Ala Asn Leu Val Asp Thr Ala Leu Ala

| | | | |
|---|----|----|----|
| 1 | 5 | 10 | 15 |
| Leu Thr Ser Glu Asp Ala Val Leu Asn Met Ala Ala Ser Leu Ser Gly | | | |
| 20 | 25 | 30 | |
| Trp Gln Glu Ala Ala Leu Val Gly Leu Ala Ser Gly Met Thr Pro Glu | | | |
| 35 | 40 | 45 | |
| Gln Val Arg Gln Glu Leu Leu Glu Ser Pro Glu Glu Leu Pro Glu Pro | | | |
| 50 | 55 | 60 | |
| Ser Lys Lys Gln His Gly His Ala Ala Ser Pro Arg Glu Pro Asp Val | | | |
| 65 | 70 | 75 | 80 |
| Glu Leu Leu Glu Ser Leu Arg Arg Pro Ala Ala Ala Met Glu Phe Ala | | | |
| 85 | 90 | 95 | |
| Thr Ile Glu Gly Val Asp | | | |
| 100 | | | |

<210> 229

<211> 743

<212> DNA

<213> Homo sapiens

<400> 229

```

nnggctaggg acacggcctc ctctcaaca ggcagtgcct gtgcaggctc aggggcatca
60
tcaaagataa cacagggctg gtcaggggct gctggctgct cctgccccag gactggctcc
120
aggatgggca aggctgcctc cctggtagcc agggggagag gggaagggag caccagggag
180
tgggccagca ggtgtggcat cggccaggag gagatggagg ccagcagcag ccaagaccag
240
agtaaagtgt ctgccccagg ggtgctcaca gccaggacc gggtagttgg aaagccagcc
300
cagcttggca ctacagggag ccaggaggca gatgttcagg actgggagtt cagaaagagg
360
gattcccagg gcacttactc cagccgggat gcagaactcc aggaccagga attcggaaag
420
agagattcac tgggtacctc cagtagtcga gatgtaagcc ttggggactg ggaatttggg
480
aagagagatt ctctgggtgc ttatgccagc caagatgcca acgagcaggg ccaagatttg
540
gggaagaggg accaccatgg taggtacagc agccaggatg ccgatgagca ggactgggag
600
tttcagaaga gagatgtgtc actcggcacc tatggcagcc gggctgcgga gccacaggaa
660
caggagtttg ggaagagcgc ttggataagg gactacagca gtggtggcag ctccaggacc
720
cttgacgccc aggacagaag ctt
743

```

<210> 230

<211> 247

<212> PRT

<213> Homo sapiens

<400> 230

```

Xaa Ala Arg Asp Thr Ala Ser Ser Ser Thr Gly Ser Ala Cys Ala Gly

```

| | | | |
|-----------------|-----------------|-----------------|---------------------|
| 1 | 5 | 10 | 15 |
| Ser Gly Ala Ser | Ser Lys Ile Thr | Gln Gly Trp Ser | Gly Ala Ala Gly |
| 20 | 25 | 30 | |
| Cys Ser Cys Pro | Arg Thr Gly Ser | Arg Met Gly Lys | Ala Ala Ser Leu |
| 35 | 40 | 45 | |
| Val Ala Arg Gly | Arg Gly Glu Gly | Ser Thr Arg Glu | Trp Ala Ser Arg |
| 50 | 55 | 60 | |
| Cys Gly Ile Gly | Gln Glu Glu Met | Glu Ala Ser Ser | Ser Ser Gln Asp Gln |
| 65 | 70 | 75 | 80 |
| Ser Lys Val Ser | Ala Pro Gly Val | Leu Thr Ala Gln | Asp Arg Val Val |
| 85 | 90 | 95 | |
| Gly Lys Pro Ala | Gln Leu Gly Thr | Gln Arg Ser Gln | Glu Ala Asp Val |
| 100 | 105 | 110 | |
| Gln Asp Trp Glu | Phe Arg Lys Arg | Asp Ser Gln Gly | Thr Tyr Ser Ser |
| 115 | 120 | 125 | |
| Arg Asp Ala Glu | Leu Gln Asp Gln | Glu Phe Gly Lys | Arg Asp Ser Leu |
| 130 | 135 | 140 | |
| Gly Thr Tyr Ser | Ser Arg Asp Val | Ser Leu Gly Asp | Trp Glu Phe Gly |
| 145 | 150 | 155 | 160 |
| Lys Arg Asp Ser | Leu Gly Ala Tyr | Ala Ser Gln Asp | Ala Asn Glu Gln |
| 165 | 170 | 175 | |
| Gly Gln Asp Leu | Gly Lys Arg Asp | His His Gly Arg | Tyr Ser Ser Gln |
| 180 | 185 | 190 | |
| Asp Ala Asp Glu | Gln Asp Trp Glu | Phe Gln Lys Arg | Asp Val Ser Leu |
| 195 | 200 | 205 | |
| Gly Thr Tyr Gly | Ser Arg Ala Ala | Glu Pro Gln Glu | Gln Glu Phe Gly |
| 210 | 215 | 220 | |
| Lys Ser Ala Trp | Ile Arg Asp Tyr | Ser Ser Gly Gly | Ser Ser Arg Thr |
| 225 | 230 | 235 | 240 |
| Leu Asp Ala Gln | Asp Arg Ser | | |
| 245 | | | |

<210> 231

<211> 431

<212> DNA

<213> Homo sapiens

<400> 231

acgcgttggc caccgagagg ctggcgaggg tgtgcagcac ggcgcagtgt ggcaggggtcc
60

cagggtgcag cctgcgcage agtcctcca tcaccttgct gatgaactgt cttcccacgg
120

ccaccaggac gccactcgcc gectgctgcc agtcccagac caggtccttc gtcttggtca
180

tctcgctgga ggccaggagg atgatggtgc tggctgtgtc cttgtccagc tcaactgggc
240

gactgctcag gacctctcc atggcctca ggaccgctgc tcggtatggg tgtgccagct
300

tgatcatgctg ccgcagatac tcctcgagg cacggagcgt ctccaccctg ctggacgcc
360

tcaccgataa ggacccctg gtgcaggagc aggtctgcag tgcctgtgc tccctcggg
420

aggtgcggcc g

431

<210> 232
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 232
 Met Ala Ser Ser Arg Val Glu Thr Leu Arg Ala Cys Glu Glu Tyr Leu
 1 5 10 15
 Arg Gln His Asp Lys Leu Ala His Pro Tyr Arg Ala Ala Val Leu Arg
 20 25 30
 Ala Met Glu Arg Val Leu Ser Ser Arg Ala Ser Glu Leu Asp Lys Asp
 35 40 45
 Thr Ala Ser Thr Ile Ile Leu Leu Ala Ser Ser Glu Met Thr Lys Thr
 50 55 60
 Lys Asp Leu Val Trp Asp Trp Gln Gln Ala Ala Ser Gly Val Leu Val
 65 70 75 80
 Ala Val Gly Arg Gln Phe Ile Ser Lys Val Met Glu Glu Leu Leu Arg
 85 90 95
 Arg Leu His Pro Gly Thr Leu Pro His Cys Ala Val Leu His Thr Leu
 100 105 110
 Ala Ser Leu Ser Val Ala Asn Ala
 115 120

<210> 233
 <211> 606
 <212> DNA
 <213> Homo sapiens

<400> 233
 acgcgttcag ggatgccaga aatctaactg ggtaataaaa agctgggaga acattccaga
 60
 aagggtgggca cccttagcat tcccaaaaag caccagccct cctcatcctt cccagcttct
 120
 gtgctggaat gcacccccat cggaaggct cgaaaactca ggacacatta ggatcacctg
 180
 gaaagcattt gtcaaaacgc atctccctgc gggtcagggt ccaagttaaa atcaaacttc
 240
 aggtgatgct gactcagggt gctccagaaa cacctgggga agcagcactt tggaggctgc
 300
 ctctcacatc caccacacag caagtgggca gggagctagg taaatctcct tcccagttga
 360
 gaaggggctc ggagcaggca cagagaagag atacccttag aatgcaagtt gttcagctgc
 420
 gaaagtccag cctgcaggct tcctgggcaa gctagtgggc tgaagtatgc cacagcaaca
 480
 ggcttctaga gccggctgcc cagctcctac tetgcctctg ccactcactg actgtgtggt
 540
 cttgagcagg tcacctgtct gacttggtga gagctgacag gcatcacctg ttagaggctt
 600
 acgcgt
 606

<210> 234

<211> 108
 <212> PRT
 <213> Homo sapiens

<400> 234
 Met His Pro His Arg Lys Gly Ser Lys Thr Gln Asp Thr Leu Gly Ser
 1 5 10 15
 Pro Gly Lys His Leu Ser Lys Arg Ile Ser Leu Arg Val Arg Val Gln
 20 25 30
 Val Lys Ile Lys Leu Gln Val Met Leu Thr Gln Val Ala Pro Glu Thr
 35 40 45
 Pro Gly Glu Ala Ala Leu Trp Arg Leu Pro Leu Thr Ser Thr Pro Gln
 50 55 60
 Gln Val Gly Arg Glu Leu Gly Lys Ser Pro Ser Gln Leu Arg Arg Gly
 65 70 75 80
 Ser Glu Gln Ala Gln Arg Arg Asp Thr Leu Arg Met Gln Val Val Gln
 85 90 95
 Leu Arg Lys Ser Ser Leu Gln Ala Ser Trp Ala Ser
 100 105

<210> 235
 <211> 328
 <212> DNA
 <213> Homo sapiens

<400> 235
 cgaccgttga ctattctcta caaaccacaa agacaatgat tgatttaact gaatttagaa
 60
 atagcaaaca cttaaaacag cagcagtaca gagctgaaaa ccagattctt ttgaaagaga
 120
 ttgaaagtct agaggaagaa cgacttgatc tgaaaaaaaa aattcgccaa atggctcaag
 180
 aaagaggaaa aagaagggca acttcaggat taaccactgg ggacctgaac ctaactgaaa
 240
 acatttctca aggagataga ataagtgaaa gaaaattgga tttattgagc ctcaaaaata
 300
 tgagtgaagc acaatcaaag aatgaatt
 328

<210> 236
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 236
 Met Ile Asp Leu Thr Glu Phe Arg Asn Ser Lys His Leu Lys Gln Gln
 1 5 10 15
 Gln Tyr Arg Ala Glu Asn Gln Ile Leu Leu Lys Glu Ile Glu Ser Leu
 20 25 30
 Glu Glu Glu Arg Leu Asp Leu Lys Lys Lys Ile Arg Gln Met Ala Gln
 35 40 45
 Glu Arg Gly Lys Arg Arg Ala Thr Ser Gly Leu Thr Thr Gly Asp Leu
 50 55 60
 Asn Leu Thr Glu Asn Ile Ser Gln Gly Asp Arg Ile Ser Glu Arg Lys

| | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|
| 65 | | 70 | | 75 | | 80 |
| Leu | Asp | Leu | Leu | Ser | Leu | Lys |
| | | | | Asn | Met | Ser |
| | | | | Glu | Ala | Gln |
| | | | | Ser | Lys | Asn |
| | | 85 | | 90 | | 95 |
| Glu | | | | | | |

<210> 237

<211> 2059

<212> DNA

<213> Homo sapiens

<400> 237

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ggccataagg gcacgacgca ttcctagccg atgcaccaac acgggcatga agcctgccga
60
gagcagaag ccggcgtcca tagctacggc ccatacggtc atgtctgcca tggctccgtt
120
gatgtcagac tgcacatgaa atcgggttacg gtaccccagg atcatcgcta ccgagtacac
180
cccgaacagc acccgctggg cgcgatcag cgtgaggag tgccccacca gtggcacttt
240
tcttagatag cggaacccat ccaccacatc cccagtcacc gttctcatcg tccgggaacg
300
atccaccagt ggcggcccaa gctcccgacg tgaaaactgc agcccctagg cgaccgagac
360
tgcaagagg gctgcggaga tgcagaaaat gatcgtgtcg gcgtggtgca caggaatatg
420
gcgtccggca atcatgcgca ctgctgcagc aacaaccgca ccgatcatga gccctagcgg
480
ccaatcggtg gcatgattga cgatgccgtc aggtagtcgc gcttgctgat ggtgtattcc
540
aaccagcga ccaaggcggg gagcaaaaac cggttcaggc tcatcgcgat gagcaaccca
600
atgagcaagg ccagggtggga gggcttatcg cgcgcaccac cccagaccaa gatccccagc
660
ccgacccagg tgacggcacg cattcatctg cgtattgtcc cgactacacc gtgagggcgc
720
tctctgatct gcagctcatc aaggttacgc gactgcagta cctcaatgca ctcctggcta
780
cccagacca gaacctgcca cagtcccctg agaacaccga cctgcagggt attccaggca
840
gccagaccag gtccttggt gagaagacca ccacagcggc agctttccca gtagcccttt
900
ccctctttgg cacagttgga acctccagtt gataaatgac tgtggactag cgcgcgtttt
960
ttgttttcag agcacacgta agggccagc cacagcaggc ccggcgtccc ggtggaaggc
1020
agccctgggc ggaacccagg cgtttaacgg ctactaggc agcccagat ctggggaagc
1080
agatgagcac gtggggagct ggagtgagct gagcagaagt tttgtgccc cctgccccca
1140
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1200
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1260

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 1380
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 1620
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<210> 238

<211> 129

<212> PRT

<213> Homo sapiens

<400> 238

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| Ala | Glu | Gln | Lys | Phe | Cys | Ala | Arg | Leu | Pro | Pro | Ser | Pro | Pro | Gly | His |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Val | Leu | Asp | Gly | Pro | Cys | Ser | Cys | Gly | Ser | Trp | Val | Ser | Ser | Glu | Leu |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Asp | Ile | Asn | Ala | Trp | Ile | Leu | Gln | Pro | Ala | Leu | Pro | Ser | Phe | Arg | Arg |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gln | Glu | Ser | Pro | Gly | His | Ser | Pro | Pro | Gly | Pro | Pro | Gln | Glu | Gly | Met |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Lys | Gly | Met | Pro | Ser | Ser | Leu | Val | Pro | Arg | Ala | Gln | Pro | Ser | Pro | Ser |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Pro | Pro | Gly | Gln | Gly | Gln | Cys | Gly | Ile | Phe | Arg | Phe | Arg | Pro | Leu | Trp |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Ala | Glu | Pro | Pro | Cys | Glu | Cys | Ser | Tyr | Cys | Leu | Cys | Val | Ala | Val | Thr |
| | | | 100 | | | | 105 | | | | | | 110 | | |
| Ser | Ile | Cys | Leu | Leu | Leu | Ile | Cys | Gln | Pro | Ile | Ala | Ala | Gly | Ser | Thr |
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| Phe | | | | | | | | | | | | | | | |

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 <211> 388
 <212> DNA
 <213> Homo sapiens

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 180
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<210> 240
 <211> 104
 <212> PRT
 <213> Homo sapiens

<400> 240
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 Leu Ala Ala Cys Ser Pro Leu Asn Ala Ala Met Ser Ser Ser Pro Tyr
 35 40 45
 Arg Asn Asp Val Pro Ser Lys Met Pro Thr Ser Ala Ser Ala Ser Ala
 50 55 60
 Val Met Ser Ala Tyr Arg Ala Thr Arg Asn Ala Gln Arg Asn Arg Val
 65 70 75 80
 Leu Ala Arg Tyr Glu Val Leu Gly Tyr Leu Ser Ser Gly Thr Tyr Gly
 85 90 95
 Arg Val Tyr Lys Ala Lys Glu Leu
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<210> 241
 <211> 330
 <212> DNA
 <213> Homo sapiens

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 tcccatctgg gggcccttag cacagtcctt gggacccac atgctgcctt tcaggctgat
 180

gtgggcaaac tcggcagccc agcctactcc cgggccatgg gccaccatct cagcttcctt
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<210> 242
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 242
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 Arg Leu Ser Pro Arg Glu Ala Glu Met Val Ala His Gly Pro Gly Val
 20 25 30
 Gly Trp Ala Ala Glu Phe Ala His Ile Ser Leu Lys Gly Ser Met Trp
 35 40 45
 Gly Pro Arg Asp Cys Ala Lys Gly Pro Gln Met Gly Arg Ala Lys Gly
 50 55 60
 Ala Trp Glu Gly Arg Cys Phe Pro Gln Ala Arg Pro Gly Ser Ser Ile
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 Pro Arg Ser Glu Ala Ser Ser Thr Ala Ser Val Pro Ala Ala Phe Asn
 85 90 95
 Ser Ala Pro Arg
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<210> 243
 <211> 330
 <212> DNA
 <213> Homo sapiens

<400> 243
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 120
 cccgtactgc tacacatgct agatattctc ccctccttgc ggactacagt ggtgatggtg
 180
 caggcagaag tagccgatcg attggctgcc acaccaggca gccgcattta cgggtgtcccc
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 330

<210> 244
 <211> 110
 <212> PRT
 <213> Homo sapiens

<400> 244
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| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Glu | Glu | Ile | Leu | His | Thr | Gly | His | Pro | Ala | Pro | Thr | Ala | Leu | Val | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asn | Leu | Pro | Tyr | Asn | Val | Ala | Val | Pro | Val | Leu | Leu | His | Met | Leu | Asp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ile | Leu | Pro | Ser | Leu | Arg | Thr | Thr | Val | Val | Met | Val | Gln | Ala | Glu | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Asp | Arg | Leu | Ala | Ala | Thr | Pro | Gly | Ser | Arg | Ile | Tyr | Gly | Val | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ser | Val | Lys | Val | Asn | Phe | Tyr | Gly | Thr | Val | Ser | Arg | Ala | Gly | Ala | Ile |
| | | | | 85 | | | | | 90 | | | | 95 | | |
| Gly | Arg | Asn | Val | Phe | Trp | Pro | Ala | Pro | Asn | Val | Asp | Ser | Gly | | |
| | | | 100 | | | | | 105 | | | | | 110 | | |

<210> 245

<211> 355

<212> DNA

<213> Homo sapiens

<400> 245

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120
gcgtgttgca gaaacagaag ttgaccgtcg gaggtaggcg gcattcgctt cggatcgaag
180
cgtcccgagg catccatctc gagttgacga cgaaaatctt tccagtcac gccgtagggg
240
ganttgga caacagcatc gaatttgtcc agaaggaagt ggtcgttggt gagggattg
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<210> 246

<211> 101

<212> PRT

<213> Homo sapiens

<400> 246

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Arg | Val | Leu | Asn | Gly | Ala | Ile | Pro | Ser | Pro | Thr | Thr | Thr | Ser | Phe |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Trp | Thr | Asn | Ser | Met | Leu | Trp | Leu | Pro | Xaa | Pro | Pro | Thr | Ala | Trp | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Lys | Ile | Phe | Val | Val | Asn | Ser | Arg | Trp | Met | Pro | Arg | Asp | Ala | Ser |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Ile | Arg | Ser | Glu | Cys | Arg | Leu | Pro | Pro | Thr | Val | Asn | Phe | Cys | Phe | Cys |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Asn | Thr | Leu | His | Ser | Thr | Phe | Pro | Arg | Trp | Val | Trp | Leu | Pro | Ser | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ile | Arg | Ala | Arg | His | Cys | Phe | Gln | Val | Thr | Pro | Ala | Glu | Val | Asn | Pro |
| | | | | 85 | | | | 90 | | | | | 95 | | |
| Lys | Leu | Gly | Gly | Gly | | | | | | | | | | | |
| | | | 100 | | | | | | | | | | | | |

<210> 247
 <211> 333
 <212> DNA
 <213> Homo sapiens

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 120
 ttcttccact gctacaagcg cggagtggac cgcggtgttcg ttgaccaccc actgttcctg
 180
 gagagggttt ggggaaagac cgaggagaag atctacgggc ctgacgctgg aacggactac
 240
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 300
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 333

<210> 248
 <211> 111
 <212> PRT
 <213> Homo sapiens

<400> 248
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 Gln Tyr Lys Asp Ala Trp Asp Thr Ser Val Val Ser Glu Ile Lys Met
 20 25 30
 Gly Asp Arg Tyr Glu Thr Val Arg Phe Phe His Cys Tyr Lys Arg Gly
 35 40 45
 Val Asp Arg Val Phe Val Asp His Pro Leu Phe Leu Glu Arg Val Trp
 50 55 60
 Gly Lys Thr Glu Glu Lys Ile Tyr Gly Pro Asp Ala Gly Thr Asp Tyr
 65 70 75 80
 Arg Asp Asn Gln Leu Arg Phe Ser Leu Leu Cys Gln Ala Ala Leu Glu
 85 90 95
 Ala Pro Arg Ile Leu Ser Leu Asn Asn Asn Pro Tyr Phe Ser Gly
 100 105 110

<210> 249
 <211> 5503
 <212> DNA
 <213> Homo sapiens

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 120
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 180
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 240

cagaagttcg tcatgttcta cgacagcgag tatgatatcc gtgggcttca aagctttctg
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 360
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 420
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 480
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 600
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 660
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<210> 250
 <211> 927
 <212> PRT
 <213> Homo sapiens

<400> 250
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 20 25 30
 Phe Val Gln Arg Asn Pro Gly Gly Ser Pro Arg Thr Ala Cys His Leu
 35 40 45
 Asn Pro Ser Pro Asp Gly Glu Ala Tyr Thr Leu Ala Ser Arg Pro Pro
 50 55 60
 Val Arg Leu Asn Asp Val Met Leu Arg Leu Val Thr Glu Leu Arg Trp
 65 70 75 80
 Gln Lys Phe Val Met Phe Tyr Asp Ser Glu Tyr Asp Ile Arg Gly Leu
 85 90 95
 Gln Ser Phe Leu Asp Gln Ala Ser Arg Leu Gly Leu Asp Val Ser Leu
 100 105 110
 Gln Lys Val Asp Lys Asn Ile Ser His Val Phe Thr Ser Leu Phe Thr
 115 120 125
 Thr Met Lys Thr Glu Glu Leu Asn Arg Tyr Arg Asp Thr Leu Arg Arg
 130 135 140
 Ala Ile Leu Leu Leu Ser Pro Gln Gly Ala His Ser Phe Ile Asn Glu
 145 150 155 160
 Ala Val Glu Thr Asn Leu Ala Ser Lys Asp Ser His Trp Val Phe Val
 165 170 175
 Asn Glu Glu Ile Ser Asp Pro Glu Ile Leu Asp Leu Val His Ser Ala
 180 185 190
 Leu Gly Arg Met Thr Val Val Arg Gln Ile Phe Pro Ser Ala Lys Asp
 195 200 205
 Asn Gln Lys Cys Thr Arg Asn Asn His Arg Ile Ser Ser Leu Leu Cys
 210 215 220
 Asp Pro Gln Glu Gly Tyr Leu Gln Met Leu Gln Ile Ser Asn Leu Tyr
 225 230 235 240
 Leu Tyr Asp Ser Val Leu Met Leu Ala Asn Ala Phe His Arg Lys Leu
 245 250 255
 Glu Asp Arg Lys Trp His Ser Met Ala Ser Leu Asn Cys Ile Arg Lys

| | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|--|
| | | | 260 | | | | | | 265 | | | | | | 270 | | | | | |
| Ser | Thr | Lys | Pro | Trp | Asn | Gly | Gly | Arg | Ser | Met | Leu | Asp | Thr | Ile | Lys | | | | | |
| | | 275 | | | | | 280 | | | | | 285 | | | | | | | | |
| Lys | Gly | His | Ile | Thr | Gly | Leu | Thr | Gly | Val | Met | Glu | Phe | Arg | Glu | Asp | | | | | |
| | 290 | | | | | 295 | | | | | 300 | | | | | | | | | |
| Ser | Ser | Asn | Pro | Tyr | Val | Gln | Phe | Glu | Ile | Leu | Gly | Thr | Thr | Tyr | Ser | | | | | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | | | | | |
| Glu | Thr | Phe | Gly | Lys | Asp | Met | Arg | Lys | Leu | Ala | Thr | Trp | Asp | Ser | Glu | | | | | |
| | | | | 325 | | | | | 330 | | | | | 335 | | | | | | |
| Lys | Gly | Leu | Asn | Gly | Ser | Leu | Gln | Glu | Arg | Pro | Met | Gly | Ser | Arg | Leu | | | | | |
| | | | 340 | | | | | 345 | | | | | 350 | | | | | | | |
| Gln | Gly | Leu | Thr | Leu | Lys | Val | Val | Thr | Val | Leu | Glu | Glu | Pro | Phe | Val | | | | | |
| | | | 355 | | | | 360 | | | | | 365 | | | | | | | | |
| Met | Val | Ala | Glu | Asn | Ile | Leu | Gly | Gln | Pro | Lys | Arg | Tyr | Lys | Gly | Phe | | | | | |
| | 370 | | | | | 375 | | | | | 380 | | | | | | | | | |
| Ser | Ile | Asp | Val | Leu | Asp | Ala | Leu | Ala | Lys | Ala | Leu | Gly | Phe | Lys | Tyr | | | | | |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 | | | | | |
| Glu | Ile | Tyr | Gln | Ala | Pro | Asp | Gly | Arg | Tyr | Gly | His | Gln | Leu | His | Asn | | | | | |
| | | | | 405 | | | | | 410 | | | | | 415 | | | | | | |
| Thr | Ser | Trp | Asn | Gly | Met | Ile | Gly | Glu | Leu | Ile | Ser | Lys | Arg | Ala | Asp | | | | | |
| | | | 420 | | | | | 425 | | | | | 430 | | | | | | | |
| Leu | Ala | Ile | Ser | Ala | Ile | Thr | Ile | Thr | Pro | Glu | Arg | Glu | Ser | Val | Val | | | | | |
| | | | 435 | | | | 440 | | | | | 445 | | | | | | | | |
| Asp | Phe | Ser | Lys | Arg | Tyr | Met | Asp | Tyr | Ser | Val | Gly | Ile | Leu | Ile | Lys | | | | | |
| | 450 | | | | | 455 | | | | | 460 | | | | | | | | | |
| Lys | Pro | Glu | Glu | Lys | Ile | Ser | Ile | Phe | Ser | Leu | Phe | Ala | Pro | Phe | Asp | | | | | |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 | | | | | |
| Phe | Ala | Val | Trp | Ala | Cys | Ile | Ala | Ala | Ala | Ile | Pro | Val | Val | Gly | Val | | | | | |
| | | | | 485 | | | | | 490 | | | | | 495 | | | | | | |
| Leu | Ile | Phe | Val | Leu | Asn | Arg | Ile | Gln | Ala | Val | Arg | Ala | Gln | Ser | Ala | | | | | |
| | | | 500 | | | | | 505 | | | | | 510 | | | | | | | |
| Ala | Gln | Pro | Arg | Pro | Ser | Ala | Ser | Ala | Thr | Leu | His | Ser | Ala | Ile | Trp | | | | | |
| | | | 515 | | | | 520 | | | | | | 525 | | | | | | | |
| Ile | Val | Tyr | Gly | Ala | Phe | Val | Gln | Gln | Gly | Gly | Glu | Ser | Ser | Val | Asn | | | | | |
| | 530 | | | | | 535 | | | | | 540 | | | | | | | | | |
| Ser | Met | Ala | Met | Arg | Ile | Val | Met | Gly | Ser | Trp | Trp | Leu | Phe | Thr | Leu | | | | | |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 | | | | | |
| Ile | Val | Cys | Ser | Ser | Tyr | Thr | Ala | Asn | Leu | Ala | Ala | Phe | Leu | Thr | Val | | | | | |
| | | | | 565 | | | | | 570 | | | | | 575 | | | | | | |
| Ser | Arg | Met | Asp | Asn | Pro | Ile | Arg | Thr | Phe | Gln | Asp | Leu | Ser | Lys | Gln | | | | | |
| | | | 580 | | | | | 585 | | | | | 590 | | | | | | | |
| Val | Glu | Met | Ser | Tyr | Gly | Thr | Val | Arg | Asp | Ser | Ala | Val | Tyr | Glu | Tyr | | | | | |
| | | | 595 | | | | 600 | | | | | 605 | | | | | | | | |
| Phe | Arg | Ala | Lys | Gly | Thr | Asn | Pro | Leu | Glu | Gln | Asp | Ser | Thr | Phe | Ala | | | | | |
| | 610 | | | | | 615 | | | | | 62 | | | | | | | | | |

| | | | | |
|---|-----|-----|-----|-----|
| 690 | | 695 | | 700 |
| Arg Ile Leu Glu Leu Gln Asp Thr Gly Asp Leu Asp Val Leu Lys Gln | | | | |
| 705 | | 710 | | 715 |
| Lys Trp Trp Pro His Met Gly Arg Cys Asp Leu Thr Ser His Ala Ser | | | | |
| | 725 | | 730 | 735 |
| Ala Gln Ala Asp Gly Lys Ser Leu Lys Leu His Ser Phe Ala Gly Val | | | | |
| | 740 | | 745 | 750 |
| Phe Cys Ile Leu Ala Ile Gly Leu Leu Leu Ala Cys Leu Val Ala Ala | | | | |
| | 755 | | 760 | 765 |
| Leu Glu Leu Trp Trp Asn Ser Asn Arg Cys His Gln Glu Thr Pro Lys | | | | |
| | 770 | | 775 | 780 |
| Glu Asp Lys Glu Val Asn Leu Glu Gln Val His Arg Arg Met Asn Ser | | | | |
| | 785 | | 790 | 795 |
| Leu Met Asp Glu Asp Ile Ala His Lys Gln Ile Ser Pro Ala Ser Ile | | | | |
| | 805 | | 810 | 815 |
| Glu Leu Ser Ala Leu Glu Met Gly Gly Leu Ala Pro Thr Gln Thr Leu | | | | |
| | 820 | | 825 | 830 |
| Glu Pro Thr Arg Glu Tyr Gln Asn Thr Gln Leu Ser Val Ser Thr Phe | | | | |
| | 835 | | 840 | 845 |
| Leu Pro Glu Gln Ser Ser His Gly Thr Ser Arg Thr Leu Ser Ser Gly | | | | |
| | 850 | | 855 | 860 |
| Pro Ser Ser Asn Leu Pro Leu Pro Leu Ser Ser Ser Ala Thr Met Pro | | | | |
| | 865 | | 870 | 875 |
| Ser Met Gln Cys Lys His Arg Ser Pro Asn Gly Gly Leu Phe Arg Gln | | | | |
| | 885 | | 890 | 895 |
| Ser Pro Val Lys Thr Pro Ile Pro Met Ser Phe Gln Pro Val Pro Gly | | | | |
| | 900 | | 905 | 910 |
| Gly Val Leu Pro Glu Ala Leu Asp Thr Ser His Gly Thr Ser Ile | | | | |
| | 915 | | 920 | 925 |

<210> 251

<211> 291

<212> DNA

<213> Homo sapiens

<400> 251

nngatcagcc gcggggtccg cgccctcgat tcggcggtgg agaccgagag tctgcgtgag
60
gacgtcaacg cgctcgaacg gctgcggttg gccgtgcgcg ccagcgtggt catcctcatc
120
gagtaccacc attcgggtgac cctgctgctg cgggtgcgcg ggaactcacc tctggaacga
180
gaggccctcg aggcccgccg ccgtatcgat gcgaagggttc ccgctctcgt cgagagcgcc
240
atcgccgagg gtggtctgcg ctcggatttc actcccgggc tcatcacgcg t
291

<210> 252

<211> 97

<212> PRT

<213> Homo sapiens

<400> 252

Xaa Ile Ser Arg Gly Val Arg Ala Leu Asp Ser Ala Val Glu Thr Glu

```

      1             5             10             15
Ser Leu Arg Glu Asp Val Asn Ala Leu Glu Arg Leu Arg Leu Ala Val
      20             25             30
Arg Ala Ser Val Val Ile Leu Ile Glu Tyr His His Ser Val Thr Leu
      35             40             45
Leu Leu Arg Val Arg Gly Asn Ser Pro Leu Glu Arg Glu Ala Leu Glu
      50             55             60
Ala Arg Arg Arg Ile Asp Ala Lys Val Pro Ala Leu Val Glu Ser Ala
65             70             75             80
Ile Ala Glu Gly Gly Leu Arg Ser Asp Phe Thr Pro Gly Leu Ile Thr
      85             90             95
Arg

```

<210> 253

<211> 327

<212> DNA

<213> Homo sapiens

<400> 253

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gtgcacggat gggagcgcgc gcgcgcgtgc tgggtgccttc acagcccggc gagcggcgtg
60
cgctcacggc cctgtaccga ccgatctcgc aaccttcgcg agaccgatcc accaaccgcg
120
cccacatgtc ggcagtgatg gcgggcacct tgcgggagaa ggccgggaag gtcgagcgag
180
ccaatgaccg tcgcacggtc ggcacgctcc acgagcggga cgagaagctc gcggcaggac
240
gctcactcgt cgcgggtgtcc tccgcggtct ccatcacctg ccctgcgaca tggaacgccc
300
acgacttcgg acggcgactc gacgcgt
327

```

<210> 254

<211> 106

<212> PRT

<213> Homo sapiens

<400> 254

```

Met Gly Ala Leu Ala Arg Val Leu Val Pro Ser Gln Pro Gly Glu Arg
      1             5             10             15
Arg Ala Leu Thr Val Leu Tyr Arg Pro Ile Ser Gln Pro Ser Ala Asp
      20             25             30
Arg Ser Thr Asn Arg Ala His Met Ser Ala Val Met Ala Gly Thr Leu
      35             40             45
Arg Glu Lys Ala Gly Lys Val Glu Arg Ala Asn Asp Arg Arg Thr Val
      50             55             60
Gly Thr Leu His Glu Arg Asp Glu Lys Leu Ala Ala Gly Arg Ser Leu
65             70             75             80
Val Ala Val Ser Ser Ala Val Ser Ile Thr Val Pro Ala Thr Trp Asn
      85             90             95
Ala His Asp Phe Gly Arg Arg Leu Asp Ala
      100             105

```

<210> 255
 <211> 372
 <212> DNA
 <213> Homo sapiens

<400> 255
 ctagaaatgg ctggctacga atacatggaa gctgaaaata gccacaagc ccacgaaatt
 60
 atcgtggacc atagacctga cttaatctta tgtgattgga tgatgccagg agggagtggc
 120
 atcgagctaa ctcgctcgctt aaagaaagac agcacgacag cagaaatccc tgttatttta
 180
 ctaacggcca aaagtgaaga agacaataaa attcaaggct tagaagtcgg tgcagatgac
 240
 tacatcacta aacctttctc tcctcgtgaa ctagtagcac gcctcaaggc ggtattacgc
 300
 cgagcgactc cacaaggtat tgatgacatc attgaaattg atggtttaac gcttgatccc
 360
 attagccaac gc
 372

<210> 256
 <211> 124
 <212> PRT
 <213> Homo sapiens

<400> 256
 Leu Glu Met Ala Gly Tyr Glu Tyr Met Glu Ala Glu Asn Ser Gln Gln
 1 5 10 15
 Ala His Glu Ile Ile Val Asp His Arg Pro Asp Leu Ile Leu Cys Asp
 20 25 30
 Trp Met Met Pro Gly Gly Ser Gly Ile Glu Leu Thr Arg Arg Leu Lys
 35 40 45
 Lys Asp Ser Thr Thr Ala Glu Ile Pro Val Ile Leu Leu Thr Ala Lys
 50 55 60
 Ser Glu Glu Asp Asn Lys Ile Gln Gly Leu Glu Val Gly Ala Asp Asp
 65 70 75 80
 Tyr Ile Thr Lys Pro Phe Ser Pro Arg Glu Leu Val Ala Arg Leu Lys
 85 90 95
 Ala Val Leu Arg Arg Ala Thr Pro Gln Gly Ile Asp Asp Pro Ile Glu
 100 105 110
 Ile Asp Gly Leu Thr Leu Asp Pro Ile Ser Gln Arg
 115 120

<210> 257
 <211> 639
 <212> DNA
 <213> Homo sapiens

<400> 257
 nnacgcgtag cggtcgaggt tgcggacacc atgcccgaac ccggcctgct cgccatcgag
 60
 gcacccatgg gacacggcaa gaccgaggcc gccctcatgt gcgcacaggt gctcgcgaa
 120

cgggttcggggc tcgggggcat cttcttcgggt ctaccgacga tggccacgtc caatcccatg
 180
 ttcgggtcgag ttcgggaatg gctggacgct gtgccagcca aggaccgctc aagcatttcc
 240
 ctgggtcact cgaaagctgg actcaacgag gagtaccagc agctcatgcc gtggaacgcc
 300
 accatggccg tctacgacga aggtgccggc acgcagcgtg aagcttcggc gatcgtccat
 360
 gagtggttct tgggccgcaa gcgcgcgac ctggccgacc acgtcgtcgg gaccatcgac
 420
 caggcactgt tcaccggctt caaagccaag catgtgggtg tacgccacct cggctctggcg
 480
 agcaaggctc tcatcattga tgaggtccac gccgccgacg tctatatgcy cgaatacctc
 540
 aaggtcgtcc tcgaatggct cggcgcttac cgcacgccag tcatcctcat gtccgcgacg
 600
 ctgccaccgg cccaacgtca tgaactcgcg ctagcgtag
 639

<210> 258

<211> 213

<212> PRT

<213> Homo sapiens

<400> 258

[illegible]

<210> 259
 <211> 252
 <212> DNA
 <213> Homo sapiens

<400> 259
 acgcgtgcac tgtgtgtatg catggtaacg tacacgtgtg cactgtgtgt ggtgtgcatg
 60
 ncatgggtgtg tgcacgtgtg cnactgtgta tgcattgtaa tgtgcacgtg tgcactgtg
 120
 tgtnggtgtg tatgcatgng tgtgtgcacg tgtgcactgn agtgtggggg gtatgcatgg
 180
 tgtgtgcaca tgagcactgt gtgggtgtgta tgcattgtn ggtgcacgtg tgcactgtgt
 240
 atgcaatggt gt
 252

<210> 260
 <211> 84
 <212> PRT
 <213> Homo sapiens

<400> 260
 Thr Arg Ala Leu Cys Val Cys Met Val Thr Tyr Thr Cys Ala Leu Cys
 1 5 10 15
 Val Val Cys Met Xaa Trp Cys Val His Val Cys Xaa Cys Val Cys Met
 20 25 30
 Val Met Cys Thr Cys Ala Xaa Val Cys Xaa Cys Val Cys Met Xaa Val
 35 40 45
 Cys Thr Cys Ala Leu Xaa Cys Gly Val Tyr Ala Trp Cys Val His Met
 50 55 60
 Ser Thr Val Trp Cys Val Cys Met Val Xaa Cys Thr Cys Ala Leu Cys
 65 70 75 80
 Met Gln Trp Cys

<210> 261
 <211> 1202
 <212> DNA
 <213> Homo sapiens

<400> 261
 gctagcccgg tcgcgttcgt cgtcgatttg ctggcggcag tcccctcgat cgtcttcggg
 60
 ctgtggggcg gcatcgctctt cggatcgctg ggaatcatca acggttacgc gggggcctta
 120
 ttcaaagcgc tcggctggat tccgatcttt tccgaagatc cgtcgtggtc ctcggctact
 180
 ggcacggtct accttgccag tctcgtcctg gccatcatga tcctgccaat tatcactgct
 240
 gttagccgcy acgtcatgcc ccgaacgccc catgatcaag tcgaggccgc gctcgccttc
 300
 ggatcgacgc gctgggaggt catcaagctt gcagtgttcc cccactcgcy gtccggcatc
 360

atttcgggat ccatgttggg tctaggacgc gccctcggcg agaccctggc tgtcaccctc
 420
 atcctgcaga cgatgagccc catggcgctc aaacagaacc tcaacctgtc gatcttcgtc
 480
 ggtggtgaga cattcgcgctc gaagattgcc ggtaacttct ccgaggccat tagcgatccc
 540
 acctcgctgg gtgcctcgtt ggcgtcggcc ctggccctgt tcgtcattac cttcgtggtc
 600
 aacgcgactg cccggttgat tgcggcgaag ggggttaagc gatgagcgcc accaccctg
 660
 accacatcac ccaccatggc gacaacacgc ccggacagct agatctctcc cgcccgctcg
 720
 gtaaacggac tatcaagagc ggctgcgcct caacattcat gatcgtggcc accgtactgg
 780
 ctgttatccc actggcctgg ctgctcttcg cggccgtccg gcgcggcatc ggatcactat
 840
 tccacgcgtc gtggtggacc cactcgatgg atccctcctt cgacttggcc gagcagggcg
 900
 ccatccacgc tatcgtcgga acccttgaaa ttggccttat tacatcgatt atctcggtac
 960
 cgatcgctct gatgaccgcg atcttcctag tcgagtacgc ccgcggaact aagatcgcca
 1020
 aggtcattag cttcgccgtc gacgtgctaa ccggtgtacc ttcaatcgtc ggggccctct
 1080
 tcgtcttcgc cgtagtcgtt accaccttcg gtggcaccca atccgcgtgg gcctcctcgt
 1140
 tggccctcat gatcctcatg gttccgacgg tgctgcgatc aaccgaggaa atgctcaagc
 1200
 tt
 1202

<210> 262

<211> 214

<212> PRT

<213> Homo sapiens

<400> 262

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ser | Pro | Val | Ala | Phe | Val | Val | Asp | Leu | Leu | Ala | Ala | Val | Pro | Ser |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Ile | Val | Phe | Gly | Leu | Trp | Gly | Gly | Ile | Val | Phe | Gly | Ser | Ser | Gly | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ile | Asn | Gly | Tyr | Ala | Gly | Ala | Leu | Phe | Lys | Ala | Leu | Gly | Trp | Ile | Pro |
| | | | 35 | | | | 40 | | | | | | 45 | | |
| Ile | Phe | Ser | Glu | Asp | Pro | Ser | Trp | Ser | Ser | Ala | Thr | Gly | Thr | Val | Tyr |
| | | | 50 | | | | 55 | | | | 60 | | | | |
| Leu | Ala | Ser | Leu | Val | Leu | Ala | Ile | Met | Ile | Leu | Pro | Ile | Ile | Thr | Ala |
| | | | | | | 70 | | | | 75 | | | | 80 | |
| Val | Ser | Arg | Asp | Val | Met | Pro | Arg | Thr | Pro | His | Asp | Gln | Val | Glu | Ala |
| | | | | | | 85 | | | | 90 | | | | 95 | |
| Ala | Leu | Ala | Leu | Gly | Ser | Thr | Arg | Trp | Glu | Val | Ile | Lys | Leu | Ala | Val |
| | | | | | | 100 | | | | 105 | | | | 110 | |
| Phe | Pro | His | Ser | Arg | Ser | Gly | Ile | Ile | Ser | Gly | Ser | Met | Leu | Gly | Leu |
| | | | | | | 115 | | | | | | | | 125 | |
| Gly | Arg | Ala | Leu | Gly | Glu | Thr | Leu | Ala | Val | Thr | Leu | Ile | Leu | Gln | Thr |

| | | |
|---|-----|-----|
| 130 | 135 | 140 |
| Met Ser Pro Met Ala Leu Lys Gln Asn Leu Asn Leu Ser Ile Phe Val | | |
| 145 | 150 | 155 |
| Gly Gly Glu Thr Phe Ala Ser Lys Ile Ala Gly Asn Phe Ser Glu Ala | | 160 |
| | 165 | 170 |
| Ile Ser Asp Pro Thr Ser Leu Gly Ala Leu Val Ala Ser Ala Leu Ala | | 175 |
| | 180 | 185 |
| Leu Phe Val Ile Thr Phe Val Val Asn Ala Thr Ala Arg Leu Ile Ala | | 190 |
| | 195 | 200 |
| Ala Lys Gly Val Lys Arg | | 205 |
| 210 | | |

<210> 263
 <211> 424
 <212> DNA
 <213> Homo sapiens

<400> 263
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 60
 gacgtggtgc tcgtgaacaa gctcgaaaag tatgtacgcg aacgtacctc ggaagacggt
 120
 gcgcacatgg aagaggatgc ggaccagacg ggcaacgaca tcctcacgac gatcctgctg
 180
 tcgaactggg atccactatt ggatatgacg acgcaggatc atgtgctggc catgcaaaag
 240
 gcttatatgg cctcgccatt ccgtgccaat ttggacctgg catacccatc ttcgacgcca
 300
 caggcccagt cccagccggc gatgccgccg tgggagacag ggacctcagc cagtagcatg
 360
 gcggatgctc gtgaatttgc gctgctgaag ctgtacctgc gtagcttgct gcagaagcac
 420
 gann
 424

<210> 264
 <211> 99
 <212> PRT
 <213> Homo sapiens

<400> 264
 Met Glu Glu Asp Ala Asp Gln Thr Gly Asn Asp Ile Leu Thr Thr Ile
 1 5 10 15
 Leu Leu Ser Asn Trp Asp Pro Leu Leu Asp Met Thr Thr Gln Asp His
 20 25 30
 Val Leu Ala Met Gln Lys Ala Tyr Met Ala Ser Pro Phe Arg Ala Asn
 35 40 45
 Leu Asp Leu Ala Tyr Pro Ser Ser Thr Pro Gln Ala Gln Ser Gln Pro
 50 55 60
 Ala Met Pro Pro Trp Glu Thr Gly Thr Ser Ala Ser Ser Met Ala Asp
 65 70 75 80
 Ala Arg Glu Phe Ala Leu Leu Lys Leu Tyr Leu Arg Ser Leu Leu Gln
 85 90 95
 Lys His Xaa

<210> 265
 <211> 360
 <212> DNA
 <213> Homo sapiens

<400> 265
 ncgtacggcc ctggcggtccg catggacgag ggataccatt ccggcatgac ggtgccgggt
 60
 gccttcgact ccctcatcgg caagctcatc atcactgggtg atagccgtga gcaagccctg
 120
 gctcgagctg cccgcgccct cgacgaaatc gtcacgacg gcatgccgac ggtcattccc
 180
 tttaccagg cggtggttca cgacccggct ttcactgccg ccgacgggtg cttcggcgtc
 240
 tttaccgact ggatcgaaac cgagttcgac aacaagatcg agccatacac cgggtctctg
 300
 ggcgagtctg ccaattccga gcctcctcgt gaggtcgtcg tcgaggtcaa cggtaaacgc
 360

<210> 266
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 266
 Xaa Tyr Gly Pro Gly Val Arg Met Asp Glu Gly Tyr His Ser Gly Met
 1 5 10 15
 Thr Val Pro Gly Ala Phe Asp Ser Leu Ile Gly Lys Leu Ile Ile Thr
 20 25 30
 Gly Asp Ser Arg Glu Gln Ala Leu Ala Arg Ala Ala Arg Ala Leu Asp
 35 40 45
 Glu Ile Val Ile Asp Gly Met Pro Thr Val Ile Pro Phe His Gln Ala
 50 55 60
 Val Val His Asp Pro Ala Phe Thr Ala Ala Asp Gly Cys Phe Gly Val
 65 70 75 80
 Phe Thr Asp Trp Ile Glu Thr Glu Phe Asp Asn Lys Ile Glu Pro Tyr
 85 90 95
 Thr Gly Ser Leu Gly Glu Ser Ala Asn Ser Glu Pro Pro Arg Glu Val
 100 105 110
 Val Val Glu Val Asn Gly Lys Arg
 115 120

<210> 267
 <211> 471
 <212> DNA
 <213> Homo sapiens

<400> 267
 natectcaac gtgtgttcag ttccacgcga aagatcatgt tcgtcatcgg atcgatgccg
 60
 ttaacgcac ctagtcaatc caccgatggc gaccctggca aaaaatacga ggtgacttgg
 120

ctagatctcg ggcaccttca ccctagtcgg ccgggactcg tcactatcac cacaactgtc
 180
 gatgatgacg tcatcacctc ttcccaggta aatgtcggca acctccaccg cggggatgaa
 240
 aaacttttcg aagctcgcga ttaccgccag attccgatgc ttgcatcacg tcatggctgg
 300
 acagctccat tcattggtga gaccggcgca gcccatgcc a tcgaggatgc gatgggcatt
 360
 accatcccaa ctgcggtggc atggatacga accctgctcg ctgagttcag cagaatcacc
 420
 tcacacttca catttttgtc atgggtaggc catcactgtg atgatgccgg c
 471

<210> 268

<211> 157

<212> PRT

<213> Homo sapiens

<400> 268

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Pro | Gln | Arg | Val | Phe | Ser | Ser | Thr | Arg | Lys | Ile | Met | Phe | Val | Ile |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Ser | Met | Pro | Leu | Thr | His | Pro | Ser | Gln | Ser | Thr | Asp | Gly | Asp | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Lys | Lys | Tyr | Glu | Val | Thr | Trp | Leu | Asp | Leu | Gly | His | Leu | His | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Arg | Pro | Gly | Leu | Val | Thr | Ile | Thr | Thr | Thr | Val | Asp | Asp | Asp | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ile | Thr | Ser | Ser | Gln | Val | Asn | Val | Gly | Asn | Leu | His | Arg | Gly | Asp | Glu |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Lys | Leu | Phe | Glu | Ala | Arg | Asp | Tyr | Arg | Gln | Ile | Pro | Met | Leu | Ala | Ser |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Arg | His | Gly | Trp | Thr | Ala | Pro | Phe | Ile | Gly | Glu | Thr | Gly | Ala | Ala | His |
| | | | 100 | | | | | | 105 | | | | | 110 | |
| Ala | Ile | Glu | Asp | Ala | Met | Gly | Ile | Thr | Ile | Pro | Thr | Arg | Val | Ala | Trp |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ile | Arg | Thr | Leu | Leu | Ala | Glu | Phe | Ser | Arg | Ile | Thr | Ser | His | Phe | Thr |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Phe | Leu | Ser | Trp | Val | Gly | His | His | Cys | Asp | Asp | Ala | Gly | | | |
| 145 | | | | | 150 | | | | | 155 | | | | | |

<210> 269

<211> 387

<212> DNA

<213> Homo sapiens

<400> 269

acgcgtgtcg tgtttccaga aaaaaccaat aaattagagt ttatggtaga agtgattgct
 60
 gatatgacgg taatcaatcc atttgatttc tttgtggaaa gctacgcaga agactaccca
 120
 tttgcttatg acaaagctct taaaaaagag ttagaacctt atttacaggt ttctgaacct
 180
 tgttcgttac tcgacaaatg gctgtctggt gttgatcgtg aaaaaacacc gatcaatgat
 240

tttctagtcg caataaacag tcgccttgcc ggtgatattg gctatgggtat tcgcttagaa
 300
 ccgggcgttc agtcacctga agaaacgctc acattaatga aaggctcttg tcgcgatacc
 360
 tcgggggttat tggttcaaat actacgc
 387

<210> 270
 <211> 129
 <212> PRT
 <213> Homo sapiens

<400> 270
 Thr Arg Val Val Phe Pro Glu Lys Thr Asn Lys Leu Glu Phe Met Val
 1 5 10 15
 Glu Val Ile Ala Asp Met Thr Val Ile Asn Pro Phe Asp Phe Phe Val
 20 25 30
 Glu Ser Tyr Ala Glu Asp Tyr Pro Phe Ala Tyr Asp Lys Ala Leu Lys
 35 40 45
 Lys Glu Leu Glu Pro Tyr Leu Gln Val Ser Glu Pro Cys Ser Leu Leu
 50 55 60
 Asp Lys Trp Leu Ser Gly Val Asp Arg Glu Lys Thr Pro Ile Asn Asp
 65 70 75 80
 Phe Leu Val Ala Ile Asn Ser Arg Leu Ala Gly Asp Ile Gly Tyr Gly
 85 90 95
 Ile Arg Leu Glu Pro Gly Val Gln Ser Pro Glu Glu Thr Leu Thr Leu
 100 105 110
 Met Lys Gly Ser Cys Arg Asp Thr Ser Gly Leu Leu Val Gln Ile Leu
 115 120 125
 Arg

<210> 271
 <211> 443
 <212> DNA
 <213> Homo sapiens

<400> 271
 gccggcacca acggaaaagtc ctctaccgcg cgcattggctg attcgctttt gcgtgccttc
 60
 caccgcccag tgggttttggg aaccagccca cacctgcagc gcgttactga gcgcattcggc
 120
 attgatggcc agccattca cccgcgcgat tatgtacgca tctggcacga gattaagcca
 180
 tttgtggaat tggtcgatgc cgaatcggac gtgcctatgt ctaagttcga ggtcttcgtg
 240
 ggctgtcct atgctgcgtt tgccgacgcc cccggggacg tcgctgtcgt cgaagtcggc
 300
 cttggcggac gttgggacgc taccaatgtg gtcaacgcgg atgtctctgt cattaccccg
 360
 gtgggcatgg accacacgga ttacctgggg gagacgatca ctgaaatcgc aggcgagaaa
 420
 gctggcatta ttaagccacg cgt
 443

<210> 272
 <211> 147
 <212> PRT
 <213> Homo sapiens

<400> 272
 Ala Gly Thr Asn Gly Lys Ser Ser Thr Ala Arg Met Val Asp Ser Leu
 1 5 10 15
 Leu Arg Ala Phe His Arg Arg Val Gly Leu Val Thr Ser Pro His Leu
 20 25 30
 Gln Arg Val Thr Glu Arg Ile Gly Ile Asp Gly Gln Pro Ile His Pro
 35 40 45
 Arg Asp Tyr Val Arg Ile Trp His Glu Ile Lys Pro Phe Val Glu Met
 50 55 60
 Val Asp Ala Glu Ser Asp Val Pro Met Ser Lys Phe Glu Val Phe Val
 65 70 75 80
 Gly Leu Ser Tyr Ala Ala Phe Ala Asp Ala Pro Gly Asp Val Ala Val
 85 90 95
 Val Glu Val Gly Leu Gly Gly Arg Trp Asp Ala Thr Asn Val Val Asn
 100 105 110
 Ala Asp Val Ser Val Ile Thr Pro Val Gly Met Asp His Thr Asp Tyr
 115 120 125
 Leu Gly Glu Thr Ile Thr Glu Ile Ala Gly Glu Lys Ala Gly Ile Ile
 130 135 140
 Lys Pro Arg
 145

<210> 273
 <211> 864
 <212> DNA
 <213> Homo sapiens

<400> 273
 caaagtaaga ctgcttcaaa ttttgtgttc tgctctgcag ctgctcccc cctgctgtcg
 60
 aagagaagcc aaagcccccc cccccacct caaaggctcg gaagtctggc atccctactt
 120
 ccgagcctgg atcccagtaa ggatcttgcc ctccctgcaa caccgagtgc cttagacagc
 180
 tgctgcctga gaactggcct ccagccggtg tcctcattcc atggggctcc ctgctgactg
 240
 catttctga tctgggatga tgtttaccag cccaaaacca gtcattgttct tccaaaagct
 300
 tctctttgat agaattttga ggccatgcc cctcccttcc agtcacatg gaattccaga
 360
 atcagtcaca gcctctgatt ttttccaaga agagattgcc ttcaccattg ttaaattgtca
 420
 gcctgtacgg cagagacatg gtggtctgca caagcctgga caagttcttc catattgatg
 480
 gtgggagcaa cccctgtaat ctactccttg gaaggatttt ttgctttgct tatgaaaagc
 540
 tgtgcttgag acttaggtac ttttctcagc tggacacact gatcccatcc catattgcat
 600

ctttgaagag atggatatca agtacacttt ggtagctgaa ataatcatat ctttctgatg
 660
 tctattgtat ctcctttgag gaaaagaaca cacattttta atggagattg gctgctttca
 720
 ggtatgtgtg tctatcattg aaagagcatg gactcaaaca tcagccctga gttcttgagt
 780
 ccaccaact cccatcttct tgtggcacag gaaagctgcc ctctccctct cccaccacac
 840
 tcctgactaa tgcccttcac gcgt
 864

<210> 274

<211> 116

<212> PRT

<213> Homo sapiens

<400> 274

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Trp | Thr | Gly | Arg | Glu | Val | Ala | Trp | Pro | Gln | Asn | Ser | Ile | Lys | Glu |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Lys | Leu | Leu | Glu | Glu | His | Asp | Trp | Phe | Trp | Ala | Gly | Lys | His | His | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Ser | Gly | Asn | Ala | Val | Ser | Arg | Glu | Pro | His | Gly | Met | Arg | Thr | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Gly | Gly | Gln | Phe | Ser | Gly | Ser | Ser | Cys | Leu | Arg | His | Ser | Val | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gln | Gly | Gly | Gln | Asp | Pro | Tyr | Trp | Asp | Pro | Gly | Ser | Glu | Val | Gly | Met |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Pro | Asp | Phe | Arg | Ala | Phe | Glu | Val | Gly | Gly | Gly | Gly | Phe | Gly | Phe | Ser |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Ser | Thr | Ala | Gly | Ser | Glu | Leu | Gln | Ser | Arg | Thr | Gln | Asn | Leu | Lys | |
| | | 100 | | | | | 105 | | | | | 110 | | | |
| Gln | Ser | Tyr | Phe | | | | | | | | | | | | |
| | | 115 | | | | | | | | | | | | | |

<210> 275

<211> 911

<212> DNA

<213> Homo sapiens

<400> 275

naaatttaaa ggaacctccc ttctataacg gagagtatatt attgcagctt tcctttctgt
 60
 ttatttttcag gaatgaaagg aattacccag ccttctgctt ttatacctac agctgaaagt
 120
 aattcctttc agcctcaggt gaagactttg ccatctccaa ttgatgctaa acagcagttg
 180
 caacggaaaa tccagaagaa gcagcaagaa cagaaactac aatccccctt gccaggagaa
 240
 tctgcagcaa aaaagtcaga aagtgtctaca agcaatggag tgactaatct tcctaattgga
 300
 aatccttcaa tcctttctcc tcaacctatt ggtatcgttg tggcagctgt ccctagtccc
 360
 attccggtcc agcggactag gcaattggta acttcaccga gtccaatgag ttcttctnga
 420

cggcaaagtt cttccctca atgtacaggt ggtcactcag cacatgcagt ctgtgaaaca
 480
 ggcaccaaag actccccaga acgttccagc agtcctgggtg ggaatcggtc tgcccggcac
 540
 cgttaccctc agatcttacc caaaccagcg aacaccagtg cactcaccat tcgctctcca
 600
 actactgtcc tctttactag tagtcccatc aaaactgctg ttgtaccgcg ttcacacatg
 660
 agttctctaa atgtgggtgaa aatgacaaca atatccctca caccagcaa cagtaacacc
 720
 cctcttaaac attctgcctc agtcagcagt gctacaggaa caacagaaga atcaaggagt
 780
 gttccacaga tcaagaatgg ttctgtcgtg tcgcttcagt ctctgggtc caggagcagc
 840
 agtgcggggg gaacatctgc tgtggaagtc aaagtggaac ccgaaacatc atcagatgag
 900
 catcctgtac a
 911

<210> 276

<211> 279

<212> PRT

<213> Homo sapiens

<400> 276

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Lys | Gly | Ile | Thr | Gln | Pro | Ser | Ala | Phe | Ile | Pro | Thr | Ala | Glu | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asn | Ser | Phe | Gln | Pro | Gln | Val | Lys | Thr | Leu | Pro | Ser | Pro | Ile | Asp | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Lys | Gln | Gln | Leu | Gln | Arg | Lys | Ile | Gln | Lys | Lys | Gln | Gln | Glu | Gln | Lys |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Leu | Gln | Ser | Pro | Leu | Pro | Gly | Glu | Ser | Ala | Ala | Lys | Lys | Ser | Glu | Ser |
| | | | 50 | | | | 55 | | | | 60 | | | | |
| Ala | Thr | Ser | Asn | Gly | Val | Thr | Asn | Leu | Pro | Asn | Gly | Asn | Pro | Ser | Ile |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Leu | Ser | Pro | Gln | Pro | Ile | Gly | Ile | Val | Val | Ala | Ala | Val | Pro | Ser | Pro |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Ile | Pro | Val | Gln | Arg | Thr | Arg | Gln | Leu | Val | Thr | Ser | Pro | Ser | Pro | Met |
| | | | 100 | | | | 105 | | | | | 110 | | | |
| Ser | Ser | Ser | Xaa | Arg | Gln | Ser | Ser | Ser | Pro | Gln | Cys | Thr | Gly | Gly | His |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Ser | Ala | His | Ala | Val | Cys | Glu | Thr | Gly | Thr | Lys | Asp | Ser | Pro | Glu | Arg |
| | | | 130 | | | | 135 | | | | 140 | | | | |
| Ser | Ser | Ser | Pro | Gly | Gly | Asn | Arg | Ser | Ala | Arg | His | Arg | Tyr | Pro | Gln |
| 145 | | | | | 150 | | | | 155 | | | | | 160 | |
| Ile | Leu | Pro | Lys | Pro | Ala | Asn | Thr | Ser | Ala | Leu | Thr | Ile | Arg | Ser | Pro |
| | | | | 165 | | | | 170 | | | | | 175 | | |
| Thr | Thr | Val | Leu | Phe | Thr | Ser | Ser | Pro | Ile | Lys | Thr | Ala | Val | Val | Pro |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ala | Ser | His | Met | Ser | Ser | Leu | Asn | Val | Val | Lys | Met | Thr | Thr | Ile | Ser |
| | | | 195 | | | | 200 | | | | | 205 | | | |
| Leu | Thr | Pro | Ser | Asn | Ser | Asn | Thr | Pro | Leu | Lys | His | Ser | Ala | Ser | Val |
| | | | 210 | | | | 215 | | | | 220 | | | | |
| Ser | Ser | Ala | Thr | Gly | Thr | Thr | Glu | Glu | Ser | Arg | Ser | Val | Pro | Gln | Ile |

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225          230          235          240
Lys Asn Gly Ser Val Val Ser Leu Gln Ser Pro Gly Ser Arg Ser Ser
          245          250          255
Ser Ala Gly Gly Thr Ser Ala Val Glu Val Lys Val Glu Pro Glu Thr
          260          265          270
Ser Ser Asp Glu His Pro Val
          275

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<210> 277
<211> 652
<212> DNA
<213> Homo sapiens

```

```

<400> 277
nnaccggtgg ggactctcgc tgaggtcctt aatggccctt ctcgtgtccc ggacggcacc
60
atgaaccttg ttggtgggct gcgtcaggca atggccacca ctggttactc ggaggtcaaa
120
gagttccagc gcatcgagct gacgattcgc taaccgttcc accacgcaga atggtgttcc
180
ggtgagcggg tggatagcta gccttcggcc atgagtgaag tgcccgatga attggtcgtg
240
ttgctggtcg cgattgacaa catggacgcc gccctcatcc atctgcttgc cgaaagggtc
300
cggattactc gcgaggtagg ccgcctcaag gcggagtgcg gtttacctcc ggccgacccc
360
gcccgtgagg ctgagcagat cgcgcggttg cggcagttag cggtcgagtc gaacctcgac
420
cccgaattcg cgcagaaggt catcacgttc atcgtggccg aggtggtgcg tcaccacgaa
480
gctattgctg acgattctgg cgacgactct ggagtggcgg atacggggga ggcggatgtc
540
cctgggtcgg gcagctgagt tacagatcag gcgatgacgt cgccctggtg caccttcgac
600
gggattccga cgacgactgt gccgggggcg acatccttga cgaccaacgc gt
652

```

```

<210> 278
<211> 115
<212> PRT
<213> Homo sapiens

```

```

<400> 278
Met Ser Glu Val Pro Asp Glu Leu Val Val Leu Arg Gly Ala Ile Asp
1          5          10          15
Asn Met Asp Ala Ala Leu Ile His Leu Leu Ala Glu Arg Phe Arg Ile
          20          25          30
Thr Arg Glu Val Gly Arg Leu Lys Ala Glu Cys Gly Leu Pro Pro Ala
          35          40          45
Asp Pro Ala Arg Glu Ala Glu Gln Ile Ala Arg Leu Arg Gln Leu Ala
          50          55          60
Val Glu Ser Asn Leu Asp Pro Glu Phe Ala Gln Lys Val Ile Thr Phe
65          70          75          80
Ile Val Ala Glu Val Val Arg His His Glu Ala Ile Ala Asp Asp Ser

```

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Gly | Asp | Asp | Ser | Gly | Val | Ala | Asp | Thr | Gly | Glu | Ala | Asp | Val | Pro | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ser | Gly | Ser | | | | | | | | | | | | | |
| | | | 115 | | | | | | | | | | | | |

<210> 279
 <211> 348
 <212> DNA
 <213> Homo sapiens

<400> 279
 cgggaggtca cacaagcatt caaaccatag cagatggtaa atgttatgtt atgtgtatatt
 60
 taccacaatc cttaaaaaga aaagaaagaa aggcataatgg aacccttagt taccttcat
 120
 ccagcttcaa aattgtcagt gcatgggtcaa tcttgtctta tctgcccctc acccaccctt
 180
 ttccagaaag aagacccaga ggattccaca tctgcctgga aaccacgacc agtctcgact
 240
 ggaagttgtt gttaatgttg catgtattca taaaacctct aggcatttct agtgccctc
 300
 agaatttttc caaattcagg caaacacaga aattacttcc aaaaattt
 348

<210> 280
 <211> 99
 <212> PRT
 <213> Homo sapiens

<400> 280
 Met Cys Ile Leu Pro Gln Ser Leu Lys Arg Lys Glu Arg Lys Ala Tyr
 1 5 10 15
 Gly Thr Pro Ser Tyr Leu Ser Ser Ser Phe Lys Ile Val Ser Ala Trp
 20 25 30
 Ser Ile Leu Ser Tyr Leu Pro Leu Thr His Pro Phe Pro Glu Arg Arg
 35 40 45
 Pro Arg Gly Phe His Ile Cys Leu Glu Thr Thr Thr Ser Leu Asp Trp
 50 55 60
 Lys Leu Leu Leu Met Leu His Val Phe Ile Lys Pro Leu Gly Ile Ser
 65 70 75 80
 Ser Val Pro Gln Asn Phe Ser Lys Phe Arg Gln Thr Gln Lys Leu Leu
 85 90 95
 Pro Lys Ile

<210> 281
 <211> 384
 <212> DNA
 <213> Homo sapiens

<400> 281
 agatctgcgc agatcgataa tggattaaag actcttgacg ctggagtcac cgagatgaac
 60

aacaagggtgt tgggggcaac gaaggctgtc ggtgattcca ccactaccgt caaccaggtg
120
aattctgcgt taggaantgc cgactcagcg gcagagaaga cgtcgagcgc cgttactcag
180
acgcgcgtgg gtgccaggc gattaccggc gctgctcaaa atgtcatggc tgattcccaa
240
gctgtcaact cagccatggg tccgcttatt aataacgtga caaagaatct tcctaccttg
300
caaaaacagg ccaggaatct cgtgtcagtg aacggtaccc tgcagaaccc caacggtgat
360
tctgtcatta agattcaaca gacc
384

<210> 282

<211> 110

<212> PRT

<213> Homo sapiens

<400> 282

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Asn | Asn | Lys | Val | Leu | Gly | Ala | Thr | Lys | Ala | Val | Gly | Asp | Ser | Thr |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Thr | Thr | Val | Asn | Gln | Val | Asn | Ser | Ala | Leu | Gly | Xaa | Ala | Asp | Ser | Ala |
| | | 20 | | | | | 25 | | | | | | 30 | | |
| Ala | Glu | Lys | Thr | Ser | Ser | Ala | Val | Thr | Gln | Thr | Arg | Val | Gly | Ala | Gln |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Ile | Thr | Gly | Ala | Ala | Gln | Asn | Val | Met | Ala | Asp | Ser | Gln | Ala | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asn | Ser | Ala | Met | Val | Pro | Leu | Ile | Asn | Asn | Val | Thr | Lys | Asn | Leu | Pro |
| 65 | | | | 70 | | | | | | 75 | | | | 80 | |
| Thr | Leu | Gln | Lys | Gln | Ala | Arg | Asn | Leu | Val | Ser | Val | Asn | Gly | Thr | Leu |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Gln | Asn | Pro | Asn | Gly | Asp | Ser | Val | Ile | Lys | Ile | Gln | Gln | Thr | | |
| | | | 100 | | | | | | 105 | | | | 110 | | |

<210> 283

<211> 426

<212> DNA

<213> Homo sapiens

<400> 283

cgcgtagacc aatgtgagac ggccgtcacc aaggcatgc gcgacaagtc ggttggttagc
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ggaccggata ttgtgcgtcg cgagctgcgc catgtcgtga cgagcggcac gattgtcgat
120
ggaagcgtac tggctgacga attgagcagc tactgcatga gtatcaagga gcacgtccgc
180
tctgatggcc tatccgagtt tggcatctgc accctcgacg ccgccaccgc cgagttccga
240
tacatgacat tcgtcgacga tgccgtgctg tcacaactcg agacattgct gcgtttctcta
300
cgcacaaagg aagtcttgca tgaaaaaggg gtcattgttc cttccacgct gcgcttgatc
360
cgcaacgcgg tgcccaccac ctgccaaatt accatgctca agcctgatac cgaattgtcg
420

gagaga
426

<210> 284
<211> 142
<212> PRT
<213> Homo sapiens

<400> 284
Arg Val Asp Gln Cys Glu Thr Ala Val Thr Lys Gly Met Arg Asp Lys
1 5 10 15
Ser Val Gly Ser Gly Pro Asp Ile Val Arg Arg Glu Leu Arg His Val
20 25 30
Val Thr Ser Gly Thr Ile Val Asp Gly Ser Val Leu Ala Asp Glu Leu
35 40 45
Ser Ser Tyr Cys Met Ser Ile Lys Glu His Val Arg Ser Asp Gly Leu
50 55 60
Ser Glu Phe Gly Ile Cys Thr Leu Asp Ala Ala Thr Ala Glu Phe Arg
65 70 75 80
Tyr Met Thr Phe Val Asp Asp Ala Val Leu Ser Gln Leu Glu Thr Leu
85 90 95
Leu Arg Ser Leu Arg Ile Lys Glu Val Leu His Glu Lys Gly Val Met
100 105 110
Leu Pro Ser Thr Leu Arg Leu Ile Arg Asn Ala Val Pro Thr Thr Cys
115 120 125
Gln Ile Thr Met Leu Lys Pro Asp Thr Glu Leu Ser Glu Arg
130 135 140

<210> 285
<211> 345
<212> DNA
<213> Homo sapiens

<400> 285
acgcgtgcag tcccttaccg acatgctggc agatgagctc gacggcagcc gcttcaccgg
60
cgattttctca gaaatctaca aacgtcagaa ctcgatcttc ggcgatgtaa ggaataactt
120
ttacaaaaaa ggataccgca tcatcaacgt agcgaatggt gtattgcgca agatttcact
180
ggtaagcgca ggcaatgcag acaatgtgaa aggtcaggcc ctgttcttcc gcggtgtggc
240
gcatttcgaa ctcgctgcgtt tgtttgcaca accctgggggt tatacttcgg acaattcaca
300
ctacggcatc ccgctccgca atgaaatcgt aattgggttct attcn
345

<210> 286
<211> 107
<212> PRT
<213> Homo sapiens

<400> 286
Met Leu Ala Asp Glu Leu Asp Gly Ser Arg Phe Thr Gly Asp Phe Ser

| | | | |
|---|-----|----|----|
| 1 | 5 | 10 | 15 |
| Glu Ile Tyr Lys Arg Gln Asn Ser Ile Phe Gly Asp Val Arg Asn Asn | | | |
| 20 | 25 | 30 | |
| Phe Tyr Lys Lys Gly Tyr Arg Ile Ile Asn Val Ala Asn Gly Val Leu | | | |
| 35 | 40 | 45 | |
| Arg Lys Ile Ser Leu Val Ser Ala Gly Asn Ala Asp Asn Val Lys Gly | | | |
| 50 | 55 | 60 | |
| Gln Ala Leu Phe Phe Arg Gly Val Ala His Phe Glu Leu Val Arg Leu | | | |
| 65 | 70 | 75 | 80 |
| Phe Ala Gln Pro Trp Gly Tyr Thr Ser Asp Asn Ser His Tyr Gly Ile | | | |
| 85 | 90 | 95 | |
| Pro Leu Arg Asn Glu Ile Val Ile Gly Ser Ile | | | |
| 100 | 105 | | |

<210> 287

<211> 1379

<212> DNA

<213> Homo sapiens

<400> 287

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nnttaactgc ccctttgcag tctttattct gggacattag cactgtctgg ttatcttgct
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tcagttgagg gattcgggac aatagcagtg ctgatggtaa tgttggcgat ttccctgttt
120
gttttgcagg tcacggccag gggctttggg ccgctgttac agtttgccta cactgccaaag
180
ctgttactca gcagagaaaa catccgcgag gtcacccgct gtgctgagtt cctgcgcatg
240
cacaacctgg aggactcctg cttcagcttc ctgcagaccc agctcctgaa cagtgaggat
300
ggcctgtttg tgtgccggaa ggatgctgcg tgccagcgcc cacacgagga ctgcgagaac
360
tctgcaggag aggaggagga tgaagaggag gagacgatgg attcagagac ggccaagatg
420
gcttgcccca gggaccagat gcttcagag cccatcagct ttgaggccgc cgccatcccc
480
gtagcagaga aggaagaagc cctgctgccc gagcctgacg tgccacaga caccaaggag
540
agctcagaaa aggacgcgtt aacgcagtac cccagatata agaaatacca gcttgcattg
600
accaagaatg tctataatgc atcatcacac agtacctcag gttttgcaag cacattccgg
660
gaagataact cttagcaacag cctcaagccg gggcttgcca gggggcagat taaaagtgg
720
ccgcccagtg aagagaatga ggaagagagc atcacgctct gcctgtctgg agatgagcct
780
gacgccaagg acagagcggg ggatgtcgag atggaccgga aacagcccag ccctgcccct
840
acccccacgg cccagctgg ggccgcctgc ctggagagat ccaggagcgt ggctcgcccc
900
tctgtcttaa ggtctctgtt cagcataacg aaaagtgtgg agctgtctgg cctgcccagt
960
acatctcagc agcactttgc caggagtcca gcctgccctt ttgacaaggg gatcactcag
1020

```

ggtgacctta aaactgacta cacccttttc acaggggaatt atggacagcc ccacgtgggc
 1080
 cagaaggagg tgtccaactt caccatgggg tcgcccctca gggggcctgg gttggaggct
 1140
 ctctgtaaac aggagggaga gctggaccgg aggagcgtga tcttctcttc cagcgcttgt
 1200
 gaccaagtga gcacctcggt gcattcttat tctgggggtga gcagtttga caaagacctc
 1260
 tctgagccgg tgccaaaggg tctgtgggtg ggagccggcc agtccctccc cagctcgag
 1320
 gcctactccc acggtgggct gatggccgac cacttgccag gaaggatgcg gcccaacac
 1379

<210> 288

<211> 428

<212> PRT

<213> Homo sapiens

<400> 288

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Val | Met | Leu | Ala | Ile | Ser | Leu | Phe | Val | Leu | Gln | Val | Thr | Ala | Arg |
| 1 | | | 5 | | | | | 10 | | | | | | 15 | |
| Gly | Phe | Gly | Pro | Leu | Leu | Gln | Phe | Ala | Tyr | Thr | Ala | Lys | Leu | Leu | |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Arg | Glu | Asn | Ile | Arg | Glu | Val | Ile | Arg | Cys | Ala | Glu | Phe | Leu | Arg |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Met | His | Asn | Leu | Glu | Asp | Ser | Cys | Phe | Ser | Phe | Leu | Gln | Thr | Gln | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Asn | Ser | Glu | Asp | Gly | Leu | Phe | Val | Cys | Arg | Lys | Asp | Ala | Ala | Cys |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Gln | Arg | Pro | His | Glu | Asp | Cys | Glu | Asn | Ser | Ala | Gly | Glu | Glu | Glu | Asp |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Glu | Glu | Glu | Glu | Thr | Met | Asp | Ser | Glu | Thr | Ala | Lys | Met | Ala | Cys | Pro |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Arg | Asp | Gln | Met | Leu | Pro | Glu | Pro | Ile | Ser | Phe | Glu | Ala | Ala | Ala | Ile |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Pro | Val | Ala | Glu | Lys | Glu | Glu | Ala | Leu | Leu | Pro | Glu | Pro | Asp | Val | Pro |
| | | 130 | | | | | 135 | | | | | 140 | | | |
| Thr | Asp | Thr | Lys | Glu | Ser | Ser | Glu | Lys | Asp | Ala | Leu | Thr | Gln | Tyr | Pro |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Arg | Tyr | Lys | Lys | Tyr | Gln | Leu | Ala | Cys | Thr | Lys | Asn | Val | Tyr | Asn | Ala |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Ser | Ser | His | Ser | Thr | Ser | Gly | Phe | Ala | Ser | Thr | Phe | Arg | Glu | Asp | Asn |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ser | Ser | Asn | Ser | Leu | Lys | Pro | Gly | Leu | Ala | Arg | Gly | Gln | Ile | Lys | Ser |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Glu | Pro | Pro | Ser | Glu | Glu | Asn | Glu | Glu | Glu | Ser | Ile | Thr | Leu | Cys | Leu |
| | 210 | | | | | 215 | | | | | | 220 | | | |
| Ser | Gly | Asp | Glu | Pro | Asp | Ala | Lys | Asp | Arg | Ala | Gly | Asp | Val | Glu | Met |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Asp | Arg | Lys | Gln | Pro | Ser | Pro | Ala | Pro | Thr | Pro | Thr | Ala | Pro | Ala | Gly |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Ala | Ala | Cys | Leu | Glu | Arg | Ser | Arg | Ser | Val | Ala | Ser | Pro | Ser | Cys | Leu |
| | | 260 | | | | | | 265 | | | | | 270 | | |
| Arg | Ser | Leu | Phe | Ser | Ile | Thr | Lys | Ser | Val | Glu | Leu | Ser | Gly | Leu | Pro |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| | | | | | | | | | | | | | | | | |
| Ser | Thr | Ser | Gln | Gln | His | Phe | Ala | Arg | Ser | Pro | Ala | Cys | Pro | Phe | Asp | |
| | 290 | | | | | 295 | | | | | 300 | | | | | |
| Lys | Gly | Ile | Thr | Gln | Gly | Asp | Leu | Lys | Thr | Asp | Tyr | Thr | Pro | Phe | Thr | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | |
| Gly | Asn | Tyr | Gly | Gln | Pro | His | Val | Gly | Gln | Lys | Glu | Val | Ser | Asn | Phe | |
| | | | | 325 | | | | | 330 | | | | | 335 | | |
| Thr | Met | Gly | Ser | Pro | Leu | Arg | Gly | Pro | Gly | Leu | Glu | Ala | Leu | Cys | Lys | |
| | | | 340 | | | | | 345 | | | | | 350 | | | |
| Gln | Glu | Gly | Glu | Leu | Asp | Arg | Arg | Ser | Val | Ile | Phe | Ser | Ser | Ser | Ala | |
| | | 355 | | | | 360 | | | | | 365 | | | | | |
| Cys | Asp | Gln | Val | Ser | Thr | Ser | Val | His | Ser | Tyr | Ser | Gly | Val | Ser | Ser | |
| | 370 | | | | | 375 | | | | | 380 | | | | | |
| Leu | Asp | Lys | Asp | Leu | Ser | Glu | Pro | Val | Pro | Lys | Gly | Leu | Trp | Val | Gly | |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 | |
| Ala | Gly | Gln | Ser | Leu | Pro | Ser | Ser | Gln | Ala | Tyr | Ser | His | Gly | Gly | Leu | |
| | | | | 405 | | | | | 410 | | | | | 415 | | |
| Met | Ala | Asp | His | Leu | Pro | Gly | Arg | Met | Arg | Pro | Asn | | | | | |
| | | | 420 | | | | 425 | | | | | | | | | |

<210> 289

<211> 822

<212> DNA

<213> Homo sapiens

<400> 289

ngcattaccg ggctgaagac gggtgctcat gacctcaacg atataggcta ttgctagaac
60

cacgccggcc cacgccgcgc aaagcgcaga cacggcacca ggaggggtca catggctgat
120

agcaagtcga aggcgaagga cgagcgact gccgatgaga tcaggcggga tattgcagcg
180

accctgtgctt gcttggcagc cgggggtggag aacctcgtgg aggaggtgca tccggcaacc
240

ctcaagcgtg aagcatctga tcgtgcccg tattttgtgc agggtagagt tgatcaggtc
300

aagagccagg tcaaagatga gaaatggtgg cgcgtgcagc ggatcgcgat ggccgcagga
360

gtgctcgctg cgggcgtcgt cagcattatt gtgctgcgcg cgatagtcgg tcgcgcaacg
420

ggcgctaccg ctcgtcgcaa gcttgagaag ctgcagcttt ctcaggcgaa gcggggttcga
480

aaagatgcc aagcagcgtag taaggaagat gaaaaggcag ccaagaaaaa tgccaagctc
540

ggcaagaaga acgctaagaa gtacggcaag ctcgataccg atgactcgtc ggtaagcaac
600

cttgccgaga aaatgctcaa acaggccgcc gtgctgcgtg cacaggcggc tgccggggcg
660

tgagaacagt gccgcctagc aaacagcggc cacagcgcaa aacaggtttg gctccgaccc
720

atgtgtggacc ggagccaaac tgtgttaccg catcatTTga taccgccagc agccaggcct
780

gcgacaatgc gacgctggaa taccagcacc atgatgacta gt
822

<210> 290
 <211> 183
 <212> PRT
 <213> Homo sapiens

<400> 290
 Met Ala Asp Ser Lys Ser Lys Ala Lys Asp Glu Arg Thr Ala Asp Glu
 1 5 10 15
 Ile Arg Arg Asp Ile Ala Ala Thr Arg Ala Cys Leu Ala Ala Gly Val
 20 25 30
 Glu Asn Leu Val Glu Glu Val His Pro Ala Thr Leu Lys Arg Glu Ala
 35 40 45
 Ser Asp Arg Ala Arg Asp Phe Val Gln Gly Glu Phe Asp Gln Val Lys
 50 55 60
 Ser Gln Val Lys Asp Glu Lys Trp Trp Arg Val Gln Arg Ile Ala Met
 65 70 75 80
 Ala Ala Gly Val Leu Ala Ala Gly Val Val Ser Ile Ile Val Leu Arg
 85 90 95
 Ala Ile Val Gly Arg Ala Thr Gly Ala Thr Ala Arg Arg Lys Leu Glu
 100 105 110
 Lys Leu Gln Leu Ser Gln Ala Lys Arg Val Arg Lys Asp Ala Lys Gln
 115 120 125
 Arg Ser Lys Glu Asp Glu Lys Ala Ala Lys Lys Asn Ala Lys Leu Gly
 130 135 140
 Lys Lys Asn Ala Lys Lys Tyr Gly Lys Leu Asp Thr Asp Asp Ser Ser
 145 150 155 160
 Val Ser Asn Leu Ala Glu Lys Met Leu Lys Gln Ala Ala Val Leu Arg
 165 170 175
 Ala Gln Ala Ala Ala Gly Ala
 180

<210> 291
 <211> 351
 <212> DNA
 <213> Homo sapiens

<400> 291
 ctccacgccg acaagactta cgacgggcgt cgctgccggg ctgagtgccg ggcccgtccc
 60
 atcaccccc gcacgcgtcg ccgcggcggtg gagaccagcg agcgcttggg ccggtatcgc
 120
 tgggtcgctg agcgcacctt cgcttggtc aaccgcttcc ggcgcctcgc catccgctac
 180
 gagcggcggtg ctgacatcca cgaagccttc gtgatcctcg gctgcgcctt catctgcctc
 240
 aaccagatca gacggttttg ttaggtgctg taaagggaga atggctgcag ctgggctatc
 300
 tgctccctcg tcaaccagaa acaggctgct catcctcact caacaacgcg t
 351

<210> 292
 <211> 87
 <212> PRT

<213> Homo sapiens

<400> 292

```

Leu His Ala Asp Lys Thr Tyr Asp Gly Arg Arg Cys Arg Ala Glu Cys
 1           5           10           15
Arg Ala Arg Ser Ile Thr Pro Arg Ile Ala Arg Arg Gly Val Glu Thr
          20           25           30
Ser Glu Arg Leu Gly Arg Tyr Arg Trp Val Val Glu Arg Thr Phe Ala
          35           40           45
Trp Leu Asn Arg Phe Arg Arg Leu Ala Ile Arg Tyr Glu Arg Arg Ala
          50           55           60
Asp Ile His Glu Ala Phe Val Ile Leu Gly Cys Ala Leu Ile Cys Leu
65           70           75           80
Asn Gln Ile Arg Arg Phe Cys
          85

```

<210> 293

<211> 716

<212> DNA

<213> Homo sapiens

<400> 293

```

nncttcacca caccggccat caacgcacct cctcgtgata acttgacctt ctgccgaacc
60
ggttaatcag tttagtggcg aggcattgaca cgttgacgag tcagctgtgg tacatgtgcg
120
gaacactcac aatgccacgg cggcatgttg ctgtcgggtca cgacccttat ggtgatcgct
180
gtgagaaccc gaacggcaga tgcgattctg gcggcactgg atctgaacag gtttaagggtt
240
gcgaagactt tcgatgttcc agtgtgcgtc atagctgggtg ccgggacagg taaaactcgt
300
gctgtcactc atcgatttgc ctacgggtgca gcgacaggca agcttgatcc gcgtcgtacc
360
ctcgcggtca cttttacgac taaggcagct ggcacgatga gaggtcgact cgccgatctg
420
gggggttggtg gtgtgcaggc tcgcactatt cattctgcgg cgttgcggca gatcaagttt
480
ttctggcctc gtgcatataa ctgtgagttg ccaccgggtga gtgattctcg tttctcgatg
540
gtggcgggaga cgacccatcg cattgggtctg ggcaatgaca aggcgctgct gcgcgacttg
600
tccgccgaga tctcgtgggc gaagggtctca aatgtgccga ctgatcaata cgcattccctg
660
gctagggcgg aaggctcgggt ggtggcggga gtttcggcaa ctgacgtagg acgcgt
716

```

<210> 294

<211> 190

<212> PRT

<213> Homo sapiens

<400> 294

```

Met Leu Leu Ser Val Thr Thr Leu Met Val Ile Ala Val Arg Thr Arg

```

| | | | |
|---|-----|-----|-----|
| 1 | 5 | 10 | 15 |
| Thr Ala Asp Ala Ile Leu Ala Ala Leu Asp Leu Asn Arg Phe Lys Val | | | |
| | 20 | 25 | 30 |
| Ala Lys Thr Phe Asp Val Pro Val Cys Val Ile Ala Gly Ala Gly Thr | | | |
| | 35 | 40 | 45 |
| Gly Lys Thr Arg Ala Val Thr His Arg Ile Ala Tyr Gly Ala Ala Thr | | | |
| | 50 | 55 | 60 |
| Gly Lys Leu Asp Pro Arg Arg Thr Leu Ala Val Thr Phe Thr Thr Lys | | | |
| 65 | 70 | 75 | 80 |
| Ala Ala Gly Thr Met Arg Gly Arg Leu Ala Asp Leu Gly Val Val Gly | | | |
| | 85 | 90 | 95 |
| Val Gln Ala Arg Thr Ile His Ser Ala Ala Leu Arg Gln Ile Lys Phe | | | |
| | 100 | 105 | 110 |
| Phe Trp Pro Arg Ala Tyr Asn Cys Glu Leu Pro Pro Val Ser Asp Ser | | | |
| | 115 | 120 | 125 |
| Arg Phe Ser Met Val Ala Glu Thr Thr His Arg Ile Gly Leu Gly Asn | | | |
| | 130 | 135 | 140 |
| Asp Lys Ala Leu Leu Arg Asp Leu Ser Ala Glu Ile Ser Trp Ala Lys | | | |
| 145 | 150 | 155 | 160 |
| Val Ser Asn Val Pro Thr Asp Gln Tyr Ala Ser Leu Ala Arg Ala Glu | | | |
| | 165 | 170 | 175 |
| Gly Arg Val Val Ala Gly Val Ser Ala Thr Asp Val Gly Arg | | | |
| | 180 | 185 | 190 |

<210> 295
 <211> 417
 <212> DNA
 <213> Homo sapiens

<400> 295
 ttcatatcag gcagtacccg agtccatgcg atcaacaacg tcagcgtatc tttcacccat
 60
 tctggagtgc acctttctcat gggagaaagc ggatcaggaa aaagcaccct catcaatctc
 120
 ctagctggtc tggatacccc agattcgggg tccgtctacg cagaaggcgt caccgtatct
 180
 gatcagagcg aggcgagcag agcccaattt cgattacgcc acatcgccgt catcttccag
 240
 gacgacaacc tcatecgtga gttgaccaat accgagaata ttgcgctacc cctgtgggcg
 300
 cagggcacat cgaagtccga tgccactgaa atcgcccacg aagccatgcg aaaactagga
 360
 atcgagtcac tgggcagacg ctaccccggc gaggtctcgg gtggccaacg gcaacgc
 417

<210> 296
 <211> 139
 <212> PRT
 <213> Homo sapiens

<400> 296
 Phe Ile Ser Gly Ser Thr Arg Val His Ala Ile Asn Asn Val Ser Val
 1 5 10 15
 Ser Phe Thr His Ser Gly Val His Leu Leu Met Gly Glu Ser Gly Ser

```

          20          25          30
Gly Lys Ser Thr Leu Ile Asn Leu Leu Ala Gly Leu Asp Thr Pro Asp
          35          40          45
Ser Gly Ser Val Tyr Ala Glu Gly Val Thr Val Ser Asp Gln Ser Glu
          50          55          60
Ala Ser Arg Ala Gln Phe Arg Leu Arg His Ile Ala Val Ile Phe Gln
65          70          75          80
Asp Asp Asn Leu Ile Ala Glu Leu Thr Asn Thr Glu Asn Ile Ala Leu
          85          90          95
Pro Leu Trp Ala Gln Gly Thr Ser Lys Ser Asp Ala Thr Glu Ile Ala
          100          105          110
His Glu Ala Met Arg Lys Leu Gly Ile Glu Ser Leu Gly Arg Arg Tyr
          115          120          125
Pro Gly Glu Val Ser Gly Gly Gln Arg Gln Arg
          130          135

```

<210> 297

<211> 378

<212> DNA

<213> Homo sapiens

<400> 297

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tacaccatcg gtgaccagat tgtcgaagct ctgcaggtgc actcgaagat gtccgacaag
60
gacgcttggg cgcgtgccat cgagctgtct gacttggtgg ggattccgaa tcccagagtg
120
cgtgccaaag cttttccgca cgagttttcc ggtggcatga ggcaacgagt cgtcatcgcc
180
atggccatcg cgaacgaccc tgacctcatc atcgccgacg agccgacgac ggccctcgac
240
gtgaccatcc aggcccagat tctcgatttg ctgcgcgtag cccagcgtga aacccatgcg
300
ggcgtcgтта tgatcaccca cgacctcggt gtggtagctg gtctggctga cagggttgcc
360
gtgatgtatg ccggacgc
378

```

<210> 298

<211> 126

<212> PRT

<213> Homo sapiens

<400> 298

```

Tyr Thr Ile Gly Asp Gln Ile Val Glu Ala Leu Gln Val His Ser Lys
1          5          10          15
Met Ser Asp Lys Asp Ala Trp Ala Arg Ala Ile Glu Leu Leu Asp Leu
          20          25          30
Val Gly Ile Pro Asn Pro Glu Val Arg Ala Lys Ala Phe Pro His Glu
          35          40          45
Phe Ser Gly Gly Met Arg Gln Arg Val Val Ile Ala Met Ala Ile Ala
          50          55          60
Asn Asp Pro Asp Leu Ile Ile Ala Asp Glu Pro Thr Thr Ala Leu Asp
65          70          75          80
Val Thr Ile Gln Ala Gln Ile Leu Asp Leu Leu Arg Val Ala Gln Arg

```

| | | | | | |
|-----------------------------|-----------------------------|---------------------------------|-----|--|----|
| | 85 | | 90 | | 95 |
| Glu Thr His | Ala Gly Val Val Met | Ile Thr His Asp Leu Gly Val Val | | | |
| | 100 | 105 | 110 | | |
| Ala Gly Leu Ala Asp Arg Val | Ala Val Met Tyr Ala Gly Arg | | | | |
| 115 | 120 | 125 | | | |

<210> 299
 <211> 368
 <212> DNA
 <213> Homo sapiens

<400> 299
 gtgcacgggtt tcgttggcat gcgcaatgac cgggagaact tgcgttttga tccgagactt
 60
 ccagcccaat ggacgtcgat caaacaccac atgtctattg gcgactctca catgtctggt
 120
 ttcttggaaac gtgacgcat tacgttccag attctgtcgg gccatgaccg cgacgtgaca
 180
 gtgcgcggtg agctctacca cattgggggtt gagccggtga ggggtgccgtt gtccgatcag
 240
 gggccgttgc gtcttagcct gcgcgttacc catccgatct cgggggttgcg tcgagctgac
 300
 ggttctcttta tcaactgcaga agttcccggc agcattgctg agacgattgg gtcttctccg
 360
 atctcgac
 368

<210> 300
 <211> 122
 <212> PRT
 <213> Homo sapiens

<400> 300
 Val His Gly Phe Val Gly Met Arg Asn Asp Arg Glu Asn Leu Arg Phe
 1 5 10 15
 Asp Pro Arg Leu Pro Ala Gln Trp Thr Ser Ile Lys His His Met Leu
 20 25 30
 Ile Gly Asp Ser His Met Leu Val Phe Leu Glu Arg Asp Ala Ile Thr
 35 40 45
 Phe Gln Ile Leu Ser Gly His Asp Arg Asp Val Thr Val Arg Gly Glu
 50 55 60
 Leu Tyr His Ile Gly Val Glu Pro Val Arg Val Pro Leu Ser Asp Gln
 65 70 75 80
 Gly Pro Leu Arg Pro Ser Leu Arg Val Thr His Pro Ile Ser Gly Leu
 85 90 95
 Arg Arg Ala Asp Gly Ser Leu Ile Thr Ala Glu Val Pro Gly Ser Ile
 100 105 110
 Ala Glu Thr Ile Gly Ser Ser Pro Ile Ser
 115 120

<210> 301
 <211> 456
 <212> DNA
 <213> Homo sapiens

<400> 301

ggccgggtta ttgccgccc gtttgtcggg gaaacccggc agaccttcga gcgcaccggc
60
aacccggcgcg actattecgt accgccgccc gaaccgacct tgctcgacag gcttacggac
120
gcggggccgga cggatgatcg aatcggcaag attggtgata tctacgcgca caaaggcgtg
180
tctcaggtgc gtaaggcaat ggcaatattg gccttggttcg atgaaacact cattgccatg
240
gacgacgcgc aggacggcga tctggtcttc accaacttcg tggatttcga catgctctac
300
gggcatcgca gggatgtgcc cggtatgcc gccgcgctcg aggctttcga ccggaggctg
360
ccggaagcca tggcgaaatt gcggacgggc gatctttctga tcttgacagc cgatcatggc
420
tgcgaccga cctcaaggg aaccgaccac acgcgt
456

<210> 302

<211> 152

<212> PRT

<213> Homo sapiens

<400> 302

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Arg | Val | Ile | Ala | Arg | Pro | Phe | Val | Gly | Glu | Thr | Arg | Gln | Thr | Phe |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Glu | Arg | Thr | Gly | Asn | Arg | Arg | Asp | Tyr | Ser | Val | Pro | Pro | Pro | Glu | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Leu | Leu | Asp | Arg | Leu | Thr | Asp | Ala | Gly | Arg | Thr | Val | Ile | Ala | Ile |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Lys | Ile | Gly | Asp | Ile | Tyr | Ala | His | Lys | Gly | Val | Ser | Gln | Val | Arg |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Lys | Ala | Met | Ala | Ile | Leu | Ala | Leu | Phe | Asp | Glu | Thr | Leu | Ile | Ala | Met |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Asp | Asp | Ala | Gln | Asp | Gly | Asp | Leu | Val | Phe | Thr | Asn | Phe | Val | Asp | Phe |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Asp | Met | Leu | Tyr | Gly | His | Arg | Arg | Asp | Val | Pro | Gly | Tyr | Ala | Ala | Ala |
| | | | 100 | | | | | | 105 | | | | 110 | | |
| Leu | Glu | Ala | Phe | Asp | Arg | Arg | Leu | Pro | Glu | Ala | Met | Ala | Lys | Leu | Arg |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Thr | Gly | Asp | Leu | Leu | Ile | Leu | Thr | Ala | Asp | His | Gly | Cys | Asp | Pro | Thr |
| | 130 | | | | | 135 | | | | | | 140 | | | |
| Leu | Lys | Gly | Thr | Asp | His | Thr | Arg | | | | | | | | |
| 145 | | | | | 150 | | | | | | | | | | |

<210> 303

<211> 402

<212> DNA

<213> Homo sapiens

<400> 303

nncgtgggca tcgaggagtt cctcgacatg aagtatcagc cgacgccgat tcacgtcgc
60

tgacagcggg tttccggaac acatcagcgt tcagacagga gcgaggagac catgtacctg
 120
 ggtgctcagc tggtcagtga cagcgagtac gagcagcgcc tgagacgtgt ccgtagagctc
 180
 atggaccgtc aggggtctgtc ggcgatcatc gtcaccgatc cggccaacat cttctatctg
 240
 atcggttaca acgcctggtc gttctacacc ccgcagatgc tggtcgtgcc gatcgacgga
 300
 gagatgggcc tctacgctcg cgagatggat cgcattggcg acatcngcac gacgtcggtg
 360
 cccgccgatc agatcgctcg ttaccgggag agttatgtgc ac
 402

<210> 304

<211> 97

<212> PRT

<213> Homo sapiens

<400> 304

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Tyr | Leu | Gly | Ala | Gln | Leu | Phe | Ser | Asp | Ser | Glu | Tyr | Glu | Gln | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Arg | Arg | Val | Arg | Glu | Leu | Met | Asp | Arg | Gln | Gly | Leu | Ser | Ala | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ile | Val | Thr | Asp | Pro | Ala | Asn | Ile | Phe | Tyr | Leu | Ile | Gly | Tyr | Asn | Ala |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Trp | Ser | Phe | Tyr | Thr | Pro | Gln | Met | Leu | Phe | Val | Pro | Ile | Asp | Gly | Glu |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Met | Val | Leu | Tyr | Ala | Arg | Glu | Met | Asp | Arg | Met | Ala | His | Ile | Xaa | Thr |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Thr | Ser | Leu | Pro | Ala | Asp | Gln | Ile | Val | Gly | Tyr | Pro | Glu | Ser | Tyr | Val |
| | | | | 85 | | | | 90 | | | | | | 95 | |

His

<210> 305

<211> 375

<212> DNA

<213> Homo sapiens

<400> 305

nnacgcgtcg gttccgcacg gagcgaccgg atcgcatcga cgagcacgct gcaccagtgc
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 gtgtcgtcct ggccaatatg ggcgatcagc cggtacagtt cgggatcgtc gctcacctcg
 120
 gccgccatct cggatgcgac acgcgcgcct gcgcgctcgg cctccagcaa ctcgtcgagc
 180
 gtcgccacca gcgcggcgcg atcttcatgc ggagtcagat cggcgcgggc gtcaggcccc
 240
 tcgccatgcg tcggaatcga catgcagcac cctcctgcca ggatcgatgg cgtaatacgt
 300
 gcgacggtag acggcgcggtg ttgcacgaac gtgcaaatac gcgcgtgcct cgtgccatat
 360
 acgtcacatc atatg
 375

<210> 306

<211> 125

<212> PRT

<213> Homo sapiens

<400> 306

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Xaa Arg Val Gly Ser Ala Ser Ser Asp Arg Ile Ala Ser Thr Ser Thr
 1           5           10           15
Leu His Gln Cys Val Ser Ser Trp Arg Ile Trp Ala Ile Ser Arg Tyr
      20           25           30
Ser Ser Gly Ser Ser Leu Thr Ser Ala Ala Ile Ser Asp Ala Thr Arg
      35           40           45
Ala Pro Ala Arg Ser Ala Ser Ser Asn Ser Ser Ser Val Ala Thr Ser
      50           55           60
Ala Ala Arg Ser Ser Cys Gly Val Arg Ser Ala Arg Ala Ser Gly Pro
65           70           75           80
Ser Pro Cys Val Gly Ile Asp Met Gln His Pro Pro Ala Arg Ile Asp
      85           90           95
Gly Val Ile Arg Ala Thr Val His Gly Ala Cys Cys Thr Asn Val Gln
      100          105          110
Ile Ser Ala Cys Leu Val Pro Tyr Thr Ser His His Met
      115          120          125

```

<210> 307

<211> 685

<212> DNA

<213> Homo sapiens

<400> 307

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actagttctg gccgctcccc tggggctttg ggtaacaatt gtcagcccca cccatcctag
60
ggttaggaag gctattctct ttggccactc tcctcctaag acctatttgg agaacctctg
120
gggtttgagt ctttttttca gcagaatgag gcttgatccc gcattatagc acctcgaca
180
tttgatgtct cttcttctca cccactcacc ccacctggg gggtggggca aaaaagtggc
240
tcaaagctgc gggtcagagt tccttgtaaa caaggctcct ccctcactgt cctcacctg
300
ctccagcaga gggagcagcg gaaggaccac tctgctgcag ccatgcttgt ttctaacca
360
gcagaactgg acataatggg aacagggctc gaagacaatc aatccagggc tgcagtgggt
420
gctgagtctg gggaagcctc cacctggagg ggcagctggg cagtggcagc tcccttggaa
480
tggtcagcc tctggacatc accccacca accagagccc tggtctctgc tggatgtcca
540
cagatgagtg cctgggattg gtctcagcca ctatgggggg gatgtgcagg gagaggtgat
600
gagggagtga gcaggactgt ctatgtgcct ctgtcctcat cctgaggctt ggggtctgaa
660
ttggtgctgc agcactggca cgcgt
685

```

<210> 308
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 308
 Met Leu Val Ser Asn Pro Ala Glu Leu Asp Ile Met Gly Thr Gly Ser
 1 5 10 15
 Glu Asp Asn Gln Ser Arg Ala Ala Val Gly Ala Glu Ser Gly Glu Ala
 20 25 30
 Ser Thr Trp Arg Gly Ser Trp Ala Val Ala Ala Pro Leu Glu Trp Leu
 35 40 45
 Ser Leu Trp Thr Ser Pro His Pro Thr Arg Ala Leu Ala Leu Ala Gly
 50 55 60
 Cys Pro Gln Met Ser Ala Trp Asp Trp Ser Gln Pro Leu Trp Gly Gly
 65 70 75 80
 Cys Ala Gly Arg Gly Asp Glu Gly Val Ser Arg Thr Val Tyr Val Pro
 85 90 95
 Leu Ser Ser Ser
 100

<210> 309
 <211> 432
 <212> DNA
 <213> Homo sapiens

<400> 309
 caggctcgta ctattcgat ccctgtgcat atggctcgagg tcatcaataa gctggctcgc
 60
 gtccagcgtc agatgctcca ggacctaggt cgtgagccca ccccggaaga gcttgccaac
 120
 gaactcgata tgaccgcaga gaaggtcatt gaggtgcaga aatacggctcg cgagccgata
 180
 tcgctgcata cccactggg tgaggatggc gattctgagt tcggtgacct tattgaggat
 240
 tccgaggcca tcgtgccagc agacgccgtc aacttcaccc tggtgcagga gcagctgcat
 300
 gatgtcctcg ataccttgtc cgagcgagag gccggtgtcg tgcgatgcg attcggcttg
 360
 accgacggac agcccaagac cctggatgag atcggcaaag tctacggtgt tactcgggag
 420
 cgcacccgcc ag
 432

<210> 310
 <211> 144
 <212> PRT
 <213> Homo sapiens

<400> 310
 Gln Ala Arg Thr Ile Arg Ile Pro Val His Met Val Glu Val Ile Asn
 1 5 10 15
 Lys Leu Ala Arg Val Gln Arg Gln Met Leu Gln Asp Leu Gly Arg Glu

```

          20          25          30
Pro Thr Pro Glu Glu Leu Ala Asn Glu Leu Asp Met Thr Ala Glu Lys
          35          40          45
Val Ile Glu Val Gln Lys Tyr Gly Arg Glu Pro Ile Ser Leu His Thr
          50          55          60
Pro Leu Gly Glu Asp Gly Asp Ser Glu Phe Gly Asp Leu Ile Glu Asp
65          70          75          80
Ser Glu Ala Ile Val Pro Ala Asp Ala Val Asn Phe Thr Leu Leu Gln
          85          90          95
Glu Gln Leu His Asp Val Leu Asp Thr Leu Ser Glu Arg Glu Ala Gly
          100          105          110
Val Val Ser Met Arg Phe Gly Leu Thr Asp Gly Gln Pro Lys Thr Leu
          115          120          125
Asp Glu Ile Gly Lys Val Tyr Gly Val Thr Arg Glu Arg Ile Arg Gln
          130          135          140

```

<210> 311
 <211> 358
 <212> DNA
 <213> Homo sapiens

```

<400> 311
acgcgtatcg aaaatatccc tcccattatt accgctcgcc ctgaactgat ggctcatgaa
60
ctgacgccag aatctcttga tgcgagcctg gaggggccg atgtggtggt cattggctct
120
ggactgggac aacaagcgtg gggcaaaaaa gcgctacaaa aggtcgagaa ttgtcgtaaa
180
ccgatgctgt gggatgccga cgcgcttaac cttctggcaa tcaatcctga taaacgtcac
240
aatcgcatcc tgacgccaca ccccggcgag gccgcgcggc tgcttagctg cagcgtcgca
300
gaaattgaaa acgatcgctt acttntctgc gcacgtctgg taaaacggta acccgagt
358

```

<210> 312
 <211> 116
 <212> PRT
 <213> Homo sapiens

```

<400> 312
Thr Arg Ile Glu Asn Ile Pro Pro Ile Ile Thr Ala Arg Pro Glu Leu
1          5          10          15
Met Ala His Glu Leu Thr Pro Glu Ser Leu Asp Ala Ser Leu Glu Trp
          20          25          30
Ala Asp Val Val Val Ile Gly Pro Gly Leu Gly Gln Gln Ala Trp Gly
          35          40          45
Lys Lys Ala Leu Gln Lys Val Glu Asn Cys Arg Lys Pro Met Leu Trp
          50          55          60
Asp Ala Asp Ala Leu Asn Leu Leu Ala Ile Asn Pro Asp Lys Arg His
65          70          75          80
Asn Arg Ile Leu Thr Pro His Pro Gly Glu Ala Ala Arg Leu Leu Ser
          85          90          95
Cys Ser Val Ala Glu Ile Glu Asn Asp Arg Leu Leu Xaa Cys Ala Arg

```

100 105 110
 Leu Val Lys Arg
 115

<210> 313
 <211> 347
 <212> DNA
 <213> Homo sapiens

<400> 313
 ncaactgaaa gcattgagat gagcgacgtg ctgtccccct tccacccac caaggccaac
 60
 acccctggtg gcgaaccgcg caccatccgc acctcgaacg cgcacatcat tgccgtcacc
 120
 agtggc aaaag gcggcggtggg caagaccttt gtctccgcca acctggcgcg cgcgctgacc
 180
 cgccctgggac tgcgctgtgt ggtactggac gccgacctgg gcctggccaa cttggacgtg
 240
 gtgctgaacc tctaccccaa ggtgacgtg cagcatgtgt tcaccggcaa ggctcgtctg
 300
 caagacgcgg tggtcacggc ccccgcgggc ttccatgtgc tgctagc
 347

<210> 314
 <211> 115
 <212> PRT
 <213> Homo sapiens

<400> 314
 Xaa Thr Glu Ser Ile Glu Met Ser Asp Val Leu Ser Pro Phe His Pro
 1 5 10 15
 Thr Lys Ala Asn Thr Pro Gly Gly Glu Pro Arg Thr Ile Arg Thr Ser
 20 25 30
 Asn Ala His Ile Ile Ala Val Thr Ser Gly Lys Gly Gly Val Gly Lys
 35 40 45
 Thr Phe Val Ser Ala Asn Leu Ala Ala Leu Thr Arg Leu Gly Leu
 50 55 60
 Arg Val Leu Val Leu Asp Ala Asp Leu Gly Leu Ala Asn Leu Asp Val
 65 70 75 80
 Val Leu Asn Leu Tyr Pro Lys Val Thr Leu His Asp Val Phe Thr Gly
 85 90 95
 Lys Ala Ser Leu Gln Asp Ala Val Val Thr Ala Pro Gly Gly Phe His
 100 105 110
 Val Leu Leu
 115

<210> 315
 <211> 544
 <212> DNA
 <213> Homo sapiens

<400> 315
 nnacgcgttc gtcaacagga aaacaacaac ggcttctcgc tggagggaac catgcttgcc
 60

gaagatatct acgcgatcat gctgttttca tcgctcatcc tggtcgtccc ggggccatcc
 120
 aacaccttgc tgctcagcgc ccgtttccat ttccggctcg tcggggcggc gcccttcac
 180
 ctgcttgagg cggtgggcta ctcgctatcc atttcggcat ggggctgggt attggcgcgc
 240
 ctgtccgaga gcaatccatg gatcatcagt ctgaccaagg cactctgcgc gctatatgtg
 300
 gcgcttctgg cgggaagac ctggaatgcc ntcgatccgc agtgcggggc cggtaaacttc
 360
 cgccatgggc ccctgcccct gttcgtggca accctgtcga acccgaaggc gctgatcttc
 420
 gccagcgtga tctttcccg caaggcgttc ctcgacttct ggaacaacta cacgatctcg
 480
 ctgctggcct tcttggttgt gctggcgccc atcgggatgc tttgggtcgg gctgggggcc
 540
 ggta
 544

<210> 316
 <211> 159
 <212> PRT
 <213> Homo sapiens

<400> 316
 Ile Tyr Ala Ile Met Leu Phe Ser Ser Leu Ile Leu Val Val Pro Gly
 1 5 10 15
 Pro Ser Asn Thr Leu Leu Leu Ser Ala Arg Phe His Phe Gly Ser Leu
 20 25 30
 Arg Ala Ala Pro Phe Ile Leu Leu Glu Ala Leu Gly Tyr Ser Leu Ser
 35 40 45
 Ile Ser Ala Trp Gly Trp Val Leu Ala Arg Leu Ser Glu Ser Asn Pro
 50 55 60
 Trp Ile Ile Ser Leu Thr Lys Ala Leu Cys Ala Leu Tyr Val Ala Leu
 65 70 75 80
 Leu Ala Val Lys Thr Trp Asn Ala Xaa Asp Pro Gln Cys Gly Ala Gly
 85 90 95
 Asn Phe Arg His Gly Pro Leu Pro Leu Phe Val Ala Thr Leu Ser Asn
 100 105 110
 Pro Lys Ala Leu Ile Phe Ala Ser Val Ile Phe Pro Gly Lys Ala Phe
 115 120 125
 Leu Asp Phe Trp Asn Asn Tyr Thr Ile Ser Leu Leu Ala Phe Leu Val
 130 135 140
 Val Leu Ala Pro Ile Gly Met Leu Trp Val Gly Leu Gly Ala Gly
 145 150 155

<210> 317
 <211> 343
 <212> DNA
 <213> Homo sapiens

<400> 317
 nggtcagcct ctcgcccagg caattctctt aagatacatg agctgctatg agtaccaaag
 60

ccagaggttt gtccactgag agaagcacat tggaaagggg ggcgtgggcc tgggactgtg
 120
 tggcacttta tgcacggggg gggcctaagg gggnggtcc accaaccatg cactgngggg
 180
 ggggtgtggg taacatgccg tgcatttttg ggggtgtgcc tgagtggcac accatggggg
 240
 tggcatgtgg ggcattgtat catgtggtgt tggcgcagca aactcagctc ttacctggct
 300
 ggggccagcc tctaaaactt ctcacattgg gctcccttct gac
 343

<210> 318

<211> 98

<212> PRT

<213> Homo sapiens

<400> 318

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ser | Thr | Lys | Ala | Arg | Gly | Leu | Ser | Thr | Glu | Arg | Ser | Thr | Leu | Glu |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Arg | Gly | Ala | Trp | Ala | Trp | Asp | Cys | Val | Ala | Leu | Tyr | Ala | Arg | Gly | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Pro | Lys | Gly | Gly | Gly | Pro | Pro | Thr | Met | His | Xaa | Gly | Trp | Gly | Val | Gly |
| | | | 35 | | | | 40 | | | | | | 45 | | |
| Asn | Met | Pro | Cys | Ile | Leu | Gly | Val | Cys | His | Glu | Trp | His | Thr | Met | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Val | Ala | Cys | Gly | Ala | Cys | Met | His | Val | Val | Leu | Ala | Gln | Gln | Thr | Gln |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Leu | Leu | Pro | Gly | Trp | Gly | Gln | Pro | Leu | Lys | Leu | Leu | Thr | Leu | Gly | Ser |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Leu | Leu | | | | | | | | | | | | | | |

<210> 319

<211> 429

<212> DNA

<213> Homo sapiens

<400> 319

gaattctcga tgtaccccct cccggcagtc ctattctcga gctgagcggg cacagtggcc
 60
 ccgttaacag tgtggcttgg ggtccacca gccagagcac gttgcgaaat ggacctagta
 120
 agggcatgat atgtacagga ggcgacgatg ctcagtgcct cgtatatgat ctgactagct
 180
 caactcttcg aacagcatct gctcaaggac ggcgctctcg aaacagtcca tataaacaaa
 240
 gccattcacc gggaatagac ggatggcgtg tcggcgcaga agtgccggtg ctcgcttata
 300
 cggccccgtc tatggtcaac aatgctagct ggctcggcat gcctgcgcca tcaaaacgca
 360
 catcgctaca gagcaaacac cgcagccttt accgcagctt actcagttag tggactgagt
 420
 atacgtccn
 429

<210> 320
 <211> 101
 <212> PRT
 <213> Homo sapiens

<400> 320
 Met Ile Cys Thr Gly Gly Asp Asp Ala Gln Cys Leu Val Tyr Asp Leu
 1 5 10 15
 Thr Ser Ser Thr Leu Arg Thr Ala Ser Ala Gln Gly Arg Arg Ser Arg
 20 25 30
 Asn Ser Pro Tyr Lys Gln Ser His Ser Pro Gly Ile Asp Gly Trp Arg
 35 40 45
 Val Gly Ala Glu Val Pro Val Leu Ala Tyr Thr Ala Pro Ser Met Val
 50 55 60
 Asn Asn Ala Ser Trp Leu Gly Met Pro Ala Pro Ser Lys Arg Thr Ser
 65 70 75 80
 Leu Gln Ser Lys His Arg Ser Leu Tyr Arg Ser Leu Leu Ser Glu Trp
 85 90 95
 Thr Glu Tyr Thr Ser
 100

<210> 321
 <211> 530
 <212> DNA
 <213> Homo sapiens

<400> 321
 ngtgcacgac gtgctcgcca agtccctcgg gtcctctaata gcgatcaacg tggttcacgc
 60
 caccgtcgat gcgttgacgc agctcgagga gcccggaagag gtcgcccgtc gccgcggcaa
 120
 gtccgttgag gagatcgccc cagcagccat gctgctgtcg cgcaaggagg ccgacgaggc
 180
 cgccgctgct gcccgcatgg aggaaaaggc ggggggtaac tgatgagcaa gctgaagatc
 240
 acccagatca agtctggcat cgctaccaag ccaaatacatc gtgagaccct gcgcagcctc
 300
 ggactgaagc gtattggtga caccggtcatc aaggaggacc gcccgaggtt ccgcggcatg
 360
 gtccggaccg ttcgtcacct cgtcaccatg gaagaggtgg actgacatgg ctattgagct
 420
 ccatgacctc aagcccgtc ctggtgccca caaggccaag acccgcggtg gtcgtggtga
 480
 gggttccaag ggtaagaccg ctggtcgctg taccaagggc accggtgcac
 530

<210> 322
 <211> 60
 <212> PRT
 <213> Homo sapiens

<400> 322
 Met Ser Lys Leu Lys Ile Thr Gln Ile Lys Ser Gly Ile Ala Thr Lys

| | | | |
|---|----|----|----|
| 1 | 5 | 10 | 15 |
| Pro Asn His Arg Glu Thr Leu Arg Ser Leu Gly Leu Lys Arg Ile Gly | | | |
| 20 | 25 | 30 | |
| Asp Thr Val Ile Lys Glu Asp Arg Pro Glu Phe Arg Gly Met Val Arg | | | |
| 35 | 40 | 45 | |
| Thr Val Arg His Leu Val Thr Met Glu Glu Val Asp | | | |
| 50 | 55 | 60 | |

<210> 323
 <211> 468
 <212> DNA
 <213> Homo sapiens

<400> 323
 ntccggaccc gctgtggcca cgtattctgc cgttcctgta ttgctaccag tctaaagaac
 60
 aacaagtgga cctgtcctta ttgccgggca tatcttcctt cagaaggagt tccagcaact
 120
 gatgtagcca aaagaatgaa atcagagtat aagaactgcg ctgagtgtga caccctgggt
 180
 tgcctcagtg aaatgagggc acatattcgg acttgtcaga agtacataga taagtatgga
 240
 ccactacaag aacttgagga gacagcagca aggtgtgtat gtcccttttg tcagagggaa
 300
 ctgtatgaag acagcttgct ggatcattgt attactcatc acagatcgga acggaggcct
 360
 gtgttctgtc cactttgcca tttaataccc gatgagaatc caagcagctt cagtggcagt
 420
 ttaataagac atctgcaagt tagtcacact ttggtttatg atgatttc
 468

<210> 324
 <211> 156
 <212> PRT
 <213> Homo sapiens

<400> 324
 Xaa Arg Thr Arg Cys Gly His Val Phe Cys Arg Ser Cys Ile Ala Thr
 1 5 10 15
 Ser Leu Lys Asn Asn Lys Trp Thr Cys Pro Tyr Cys Arg Ala Tyr Leu
 20 25 30
 Pro Ser Glu Gly Val Pro Ala Thr Asp Val Ala Lys Arg Met Lys Ser
 35 40 45
 Glu Tyr Lys Asn Cys Ala Glu Cys Asp Thr Leu Val Cys Leu Ser Glu
 50 55 60
 Met Arg Ala His Ile Arg Thr Cys Gln Lys Tyr Ile Asp Lys Tyr Gly
 65 70 75 80
 Pro Leu Gln Glu Leu Glu Glu Thr Ala Ala Arg Cys Val Cys Pro Phe
 85 90 95
 Cys Gln Arg Glu Leu Tyr Glu Asp Ser Leu Leu Asp His Cys Ile Thr
 100 105 110
 His His Arg Ser Glu Arg Arg Pro Val Phe Cys Pro Leu Cys His Leu
 115 120 125
 Ile Pro Asp Glu Asn Pro Ser Ser Phe Ser Gly Ser Leu Ile Arg His

130 135 140
 Leu Gln Val Ser His Thr Leu Val Tyr Asp Asp Phe
 145 150 155

<210> 325
 <211> 374
 <212> DNA
 <213> Homo sapiens

<400> 325
 acgcgtgaag ggaggacgag gaagtaacgg gaagcacaag gccgctgctg gggagatggc
 60
 actggagccc cctaggaagc atctcacagg ctgtggccct tggcacgggg atctggggcc
 120
 aggtcgagcg caggtctggg tatcatgcga gtgcgggctc gctggggcgg gaaagagttt
 180
 ggagctctgc tcccaggga tcccactcc cgcagatgac ttgcccgaga gagttctgct
 240
 ggtggatttt gatggaaatt ctatttgatc gcaccactt ggttctactgt gtgcttcgg
 300
 gtccccaggt tttaggtgct tcatgccctg ctgggaacga gacacgctcc tgccctcagt
 360
 gaatcttcag tcta
 374

<210> 326
 <211> 108
 <212> PRT
 <213> Homo sapiens

<400> 326
 Met Lys His Leu Lys Pro Gly Asp Pro Glu Ala His Ser Glu Pro Ser
 1 5 10 15
 Gly Cys Asp Gln Ile Glu Phe Pro Ser Lys Ser Thr Ser Arg Thr Leu
 20 25 30
 Ser Gly Lys Ser Ser Ala Gly Val Gly Ile Pro Trp Glu Gln Ser Ser
 35 40 45
 Lys Leu Phe Pro Ala Pro Ala Ser Pro His Ser His Asp Thr Gln Thr
 50 55 60
 Cys Ala Arg Pro Gly Pro Arg Ser Pro Cys Gln Gly Pro Gln Pro Val
 65 70 75 80
 Arg Cys Phe Leu Gly Gly Ser Ser Ala Ile Ser Pro Ala Ala Ala Leu
 85 90 95
 Cys Phe Pro Leu Leu Pro Arg Pro Pro Phe Thr Arg
 100 105

<210> 327
 <211> 538
 <212> DNA
 <213> Homo sapiens

<400> 327
 cactataaaa tccagtttgg ggcccgtggt ctttcctatt ggtctgtcag gtgaaaaact
 60

ccggctgggg gaaaagcgtc cggtggtttg ttggtaaaga gggtagcgtga tgggctctgg
 120
 ggaatggagg atggcgcacc ggctgtgggt ggactgtgga aacgggggggt ggagtgccg
 180
 gggtagttgt cctgctggtc tggttttggg atcctgggct ggagaaatgc gatccaaaag
 240
 agctcgggat gggctcagag cgacccacga aaataccagg ggccaagtaa aatgaaccca
 300
 ccccttaaca gtgcacaaag cgctggcaca cgggccacgt ctggtgacgc aggctgccc
 360
 aagcgtcca accattttgc aaacctggga gagcaagagg ggctctgcag gtctagccgc
 420
 cgccctgtc ccactctggc cagccggagt ttttcaccta cagaccaata ggaaagaaca
 480
 cgggccccaa actggatttt atagtctgag ctctcagcat ctaaggaatg atatgcc
 538

<210> 328

<211> 125

<212> PRT

<213> Homo sapiens

<400> 328

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Val | Gly | Ala | Leu | Arg | Ala | Ala | Cys | Val | Thr | Arg | Arg | Gly | Pro | Cys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Ser | Ala | Leu | Cys | Thr | Val | Lys | Gly | Trp | Val | His | Phe | Thr | Trp | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Val | Phe | Ser | Trp | Val | Ala | Leu | Ser | Pro | Ser | Arg | Ala | Leu | Leu | Asp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Arg | Ile | Ser | Pro | Ala | Gln | Asp | Pro | Lys | Thr | Arg | Pro | Ala | Gly | Gln | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Pro | Arg | His | Cys | His | Pro | Pro | Phe | Pro | Gln | Ser | Thr | His | Ser | Arg | Cys |
| | | | | | 70 | | | | | 75 | | | | 80 | |
| Ala | Ile | Leu | His | Ser | Pro | Glu | Pro | Ile | Thr | His | Pro | Leu | Tyr | Gln | Gln |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Thr | Thr | Gly | Arg | Phe | Ser | Pro | Ser | Arg | Ser | Phe | Ser | Pro | Asp | Arg | Pro |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ile | Gly | Lys | Asn | Thr | Gly | Pro | Lys | Leu | Asp | Phe | Ile | Val | | | |
| | | 115 | | | | | 120 | | | | | 125 | | | |

<210> 329

<211> 407

<212> DNA

<213> Homo sapiens

<400> 329

tccggagagt tccctcccca ggaattcctt ctaagaatcc atgtggaaat agagcctgaa
 60
 gctcttcagt ctttctgctc cactgagcag tgttttcctg atacccttgg tatcctgcc
 120
 gcagcctcgt tatgactcct aactccattg cctccatgg cccctgggag ctctctctct
 180
 cttctctccc aggtagtaga'gcactgcttc tggcttcttg tgcacagaag ggtttccac
 240

agctgagagc tgggctccta ctgacatagt tatttccttt atatectgcc ccaccttctt
 300
 ctggtagcac acagcaacct tgcatagtag ctggtatcat taccttccca atcaacaggc
 360
 cttgatttct tataggactt tttctctcag atttacattg cttcttt
 407

<210> 330
 <211> 113
 <212> PRT
 <213> Homo sapiens

<400> 330
 Met Ile Pro Ala Thr Met Gln Gly Cys Cys Val Leu Pro Glu Glu Gly
 1 5 10 15
 Gly Ala Gly Tyr Lys Gly Asn Asn Tyr Val Ser Arg Ser Pro Ala Leu
 20 25 30
 Ser Cys Gly Lys Pro Phe Cys Ala Gln Glu Ala Arg Ser Ser Ala Leu
 35 40 45
 Leu Pro Gly Glu Lys Glu Arg Glu Ser Ala Gln Gly Pro Trp Arg Ala
 50 55 60
 Met Glu Leu Gly Val Ile Thr Arg Leu Leu Ala Gly Tyr Gln Gly Tyr
 65 70 75 80
 Gln Glu Asn Thr Ala Gln Trp Ser Arg Lys Thr Glu Glu Leu Gln Ala
 85 90 95
 Leu Phe Pro His Gly Phe Leu Glu Gly Ile Pro Gly Glu Gly Thr Leu
 100 105 110
 Arg

<210> 331
 <211> 523
 <212> DNA
 <213> Homo sapiens

<400> 331
 tgtaccgaac ctgctggtct cgagggcctt gctgggctcg tcgtacgcac agctgacgaa
 60
 tccaccggcc cccatcccgg cgccactttc gctgaggcca tggagtcgat cggagccagc
 120
 tacgacggat cggccggggt ggccggaagt cacgtcggcg tcgatgtgcc cgtgacaagg
 180
 ttcgacgcag cggctgaact cttcgtcgaa ttgttgaaca ccacgagcct ggttgaagag
 240
 gacatcgccc gtcagatcga cgcggcgcga gcctccctgg cccagaccag ccagcgcgga
 300
 tcggccctag ccgagatggc agcagcacgt gcgctatggc cagtgggggc acggtcgtcc
 360
 ctgcccacga tcggtaccct ctcgtcgggtg gaaaagetca acgccgcagc cgcacgagaa
 420
 ttctggggccg cgcactggac gatctccgat gccgtgctgg tggttgccgg agagggagtc
 480
 gaggacctcg acttgtcaat attcaaggag tggacgacca gct
 523

<210> 332
 <211> 174
 <212> PRT
 <213> Homo sapiens

<400> 332
 Cys Thr Glu Pro Ala Gly Leu Glu Gly Leu Ala Gly Leu Val Val Arg
 1 5 10 15
 Thr Ala Asp Glu Ser Thr Gly Pro His Pro Gly Ala Thr Phe Ala Glu
 20 25 30
 Ala Met Glu Ser Ile Gly Ala Ser Tyr Asp Gly Ser Ala Gly Leu Ala
 35 40 45
 Gly Ser His Val Gly Val Asp Val Pro Val Thr Arg Phe Asp Ala Ala
 50 55 60
 Ala Glu Leu Phe Val Glu Leu Leu Asn Thr Thr Ser Leu Val Glu Glu
 65 70 75 80
 Asp Ile Ala Arg Gln Ile Asp Ala Ala Arg Ala Ser Leu Ala Gln Thr
 85 90 95
 Ser Gln Arg Gly Ser Ala Leu Ala Glu Met Ala Ala Ala Arg Ala Leu
 100 105 110
 Trp Pro Val Gly Ser Arg Ser Ser Leu Pro Thr Ile Gly Thr Leu Ser
 115 120 125
 Ser Val Glu Lys Leu Asn Ala Ala Ala Arg Glu Phe Trp Ala Ala
 130 135 140
 His Trp Thr Ile Ser Asp Ala Val Leu Val Val Ala Gly Glu Gly Val
 145 150 155 160
 Glu Asp Leu Asp Leu Ser Ile Phe Lys Glu Trp Thr Thr Ser
 165 170

<210> 333
 <211> 372
 <212> DNA
 <213> Homo sapiens

<400> 333
 nntgttcgtc gtgtcgaccc ggaactcaag gcccgaggcga tgacgggtgaa ggtgccaacc
 60
 gatccccatc accgcccggg agttccattg aagtctgcga aggaccgtat ggacatcatt
 120
 tctgcttacc gagaactcgg aagctatcgc gccgcagccg aggtgtgcgg caccacccac
 180
 aagaccgtca agcgggtggt cgatcggttt gaagccggcg atccacccac cgggtggcaag
 240
 gaacggggccc gcaactacga tgcggtggcc cagctcgtcg cgcagcgagt cgcgcgggtca
 300
 cacggccgga tcaactgcaa acggctgcta ccggtagcgc gagcggcagg atatgagggg
 360
 tcggcgcgga at
 372

<210> 334
 <211> 88
 <212> PRT

<213> Homo sapiens

<400> 334

```

Met Asp Ile Ile Ser Ala Tyr Arg Glu Leu Gly Ser Tyr Arg Ala Ala
 1           5           10           15
Ala Glu Val Cys Gly Thr Thr His Lys Thr Val Lys Arg Val Val Asp
           20           25           30
Arg Phe Glu Ala Gly Asp Pro Pro Thr Gly Gly Lys Glu Arg Ala Arg
           35           40           45
Asn Tyr Asp Ala Val Ala Gln Leu Val Ala Gln Arg Val Ala Arg Ser
           50           55           60
His Gly Arg Ile Thr Ala Lys Arg Leu Leu Pro Val Ala Arg Ala Ala
65           70           75           80
Gly Tyr Glu Gly Ser Ala Arg Asn

```

85

<210> 335

<211> 356

<212> DNA

<213> Homo sapiens

<400> 335

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gtgcacgcct tgctgggcca gggcgatgag cctgcgcgca ccttcgtgga cggtaacctt
60
ggcaggggag ggcattcgag gctcatcctg cagcgggttg ggccgcaagg ccgctcggtg
120
gcgttcgaca aggacaccga agccattcaa gcagcggcgc gcatcacgga tgcgcgcttt
180
tccatcnggc accaggggtt cagccatctc ggggaactgc ccgccgccag cgtgtccggt
240
gtgctgctgg acctgggcgt gagctccccg cagatcgacg acccccagcg cgggttcagt
300
tttcgtttcg atgggtccgt ggacatgcgc atggacacca ctccgatgca tggatg
356

```

<210> 336

<211> 118

<212> PRT

<213> Homo sapiens

<400> 336

```

Val His Ala Leu Leu Gly Glu Gly Asp Ala Pro Ala Arg Thr Phe Val
 1           5           10           15
Asp Gly Thr Phe Gly Arg Gly Gly His Ser Arg Leu Ile Leu Gln Arg
           20           25           30
Leu Gly Pro Gln Gly Arg Leu Val Ala Phe Asp Lys Asp Thr Glu Ala
           35           40           45
Ile Gln Ala Ala Ala Arg Ile Thr Asp Ala Arg Phe Ser Ile Xaa His
           50           55           60
Gln Gly Phe Ser His Leu Gly Glu Leu Pro Ala Ala Ser Val Ser Gly
65           70           75           80
Val Leu Leu Asp Leu Gly Val Ser Ser Pro Gln Ile Asp Asp Pro Gln
           85           90           95
Arg Gly Phe Ser Phe Arg Phe Asp Gly Pro Leu Asp Met Arg Met Asp

```

100
Thr Thr Pro Met His Gly
115

105

110

<210> 337
<211> 447
<212> DNA
<213> Homo sapiens

<400> 337
cagcctctct ccgaccgcgc cgggtgtgaag cacgggcatg ccggtgtgca agtggcacca
60
cagccaaaac agcgagctca cacttcaaac tccttcaaag accccaggcc tctgtaagaa
120
ccgctcatct ctgtgcccac agtccccccg cttccatgtg acccagaaat ggaaccacgc
180
agcagaggcg gggatcacag gtgaagcagc tgtgaacatt tgcttcaggc ttctgtgcaa
240
acaggcgcca tcatgtcagc cgggtgagcag gagcaacgtg cgtgggtcag ggggtggcca
300
cacgtccaac ttataagaa atgacagatt ccctgatggc catagggatc tgcagggcca
360
gcagcaggca taggacttcc ggtggccctg cgtcttcac aacactgagt attgtcaggg
420
tttctgtact gtttttacag ccaattg
447

<210> 338
<211> 111
<212> PRT
<213> Homo sapiens

<400> 338
Met Pro Val Cys Lys Trp His His Ser Gln Asn Ser Glu Leu Thr Leu
1 5 10 15
Gln Thr Pro Ser Lys Thr Pro Gly Leu Cys Lys Asn Arg Ser Ser Leu
20 25 30
Cys Pro Gln Leu Pro Arg Phe His Val Thr Gln Lys Trp Asn His Ala
35 40 45
Ala Glu Ala Gly Ile Thr Gly Glu Ala Ala Val Asn Ile Cys Phe Arg
50 55 60
Leu Leu Cys Lys Gln Ala Pro Ser Cys Gln Pro Val Ser Arg Ser Asn
65 70 75 80
Val Arg Gly Ser Gly Gly Gly His Thr Ser Asn Phe Ile Arg Asn Asp
85 90 95
Arg Phe Pro Asp Gly His Arg Asp Leu Gln Gly Gln Gln Ala
100 105 110

<210> 339
<211> 588
<212> DNA
<213> Homo sapiens

<400> 339

tctagaatga agcgctgtat cctagcaccg gcagacgtac caagactatc aagggcgctca
 60
 gatcgtttat cctgcagttg ccattcatca gacaaatcca gtggaacca atggaagaca
 120
 ccgacctgca agcgctgatg gccagactcg aattgctaata tgatcgggtc gagcaactta
 180
 agagtcaaaa cggactccta ttagctcagg aaaagacctg ggcgcganaa cgcgctcacc
 240
 tcattgaaaa aaacgaaatc gcccggcgta aggtcgaatc gatgatttcg cgctgaagg
 300
 ccttgagaca agactatgag ttaagcaata gcgttacgtg cagatcctcg acaaagaata
 360
 ttgatcatc tgccccagg aagaacgcag cacctggtga gtgctgccg ctacctggaa
 420
 ggccaaaagg cgtgaaatcc gcagcagcgg caaagtcacg ggtgccgacc gcacgcctg
 480
 gatggccgcg ctgaacatca cccacgatct gctgcataag caggaacggc ctgacgttca
 540
 ggccagcggc tcaacgcgag agcaagtgcg tgacctgctg gaacgcgt
 588

<210> 340
 <211> 123
 <212> PRT
 <213> Homo sapiens

<400> 340
 Met Glu Asp Thr Asp Leu Gln Ala Leu Met Ala Arg Leu Glu Leu Leu
 1 5 10 15
 Ile Asp Arg Val Glu Gln Leu Lys Ser Gln Asn Gly Leu Leu Leu Ala
 20 25 30
 Gln Glu Lys Thr Trp Ala Arg Xaa Arg Ala His Leu Ile Glu Lys Asn
 35 40 45
 Glu Ile Ala Arg Arg Lys Val Glu Ser Met Ile Ser Arg Leu Lys Ala
 50 55 60
 Leu Glu Gln Asp Tyr Glu Leu Ser Asn Ser Val Thr Cys Arg Ser Ser
 65 70 75 80
 Thr Lys Asn Ile Arg Ser Ser Ala Pro Arg Lys Asn Ala Ala Pro Gly
 85 90 95
 Glu Cys Cys Pro Leu Pro Gly Arg Pro Lys Gly Val Lys Ser Ala Ala
 100 105 110
 Ala Ala Lys Ser Ser Val Pro Thr Ala Ser Pro
 115 120

<210> 341
 <211> 401
 <212> DNA
 <213> Homo sapiens

<400> 341
 ngccgcgcgg cctacctgct gtacctggcc tatgccacct ggcgtgaccg ctccggccttt
 60
 gcaatgaacg acacgccgac agttgcgacc gcgcgcagcc tgatcctgcg tggcttcttg
 120

ctgaacattc ttaaccccaa gctgacaatt ttcttctctgg ccttctctgcc tcaattcgta
 180
 acgccaggcg gcaccgcgcc ggccttgacg atgctgggtac tgagcggcgt gttcatggcg
 240
 atgacgcttg cagtgtttgt gctgtatggc ctgttggcga atgtgtttcg tcgtgcagtg
 300
 gtcgagtcgc cacgtgtgca gaactggctg cgacgcagtt ttgccacggc ctttgccggg
 360
 ctgggggttga acctggcggt tgcgcagcgc tgaggacgcg t
 401

<210> 342

<211> 130

<212> PRT

<213> Homo sapiens

<400> 342

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Arg | Ala | Ala | Tyr | Leu | Leu | Tyr | Leu | Ala | Tyr | Ala | Thr | Trp | Arg | Asp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Ser | Ala | Phe | Ala | Met | Asn | Asp | Thr | Pro | Thr | Val | Ala | Thr | Ala | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Leu | Ile | Leu | Arg | Gly | Phe | Leu | Leu | Asn | Ile | Leu | Asn | Pro | Lys | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Thr | Ile | Phe | Phe | Leu | Ala | Phe | Leu | Pro | Gln | Phe | Val | Thr | Pro | Gly | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Thr | Ala | Pro | Ala | Leu | Gln | Met | Leu | Val | Leu | Ser | Gly | Val | Phe | Met | Ala |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Met | Thr | Leu | Ala | Val | Phe | Val | Leu | Tyr | Gly | Leu | Leu | Ala | Asn | Val | Phe |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Arg | Arg | Ala | Val | Glu | Ser | Pro | Arg | Val | Gln | Asn | Trp | Leu | Arg | Arg | |
| | | 100 | | | | | 105 | | | | | 110 | | | |
| Ser | Phe | Ala | Thr | Ala | Phe | Ala | Gly | Leu | Gly | Leu | Asn | Leu | Ala | Phe | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Gln | Arg | | | | | | | | | | | | | | |
| 130 | | | | | | | | | | | | | | | |

<210> 343

<211> 389

<212> DNA

<213> Homo sapiens

<400> 343

gtgttgcgca actacatggc gtccctgccg ttcagcgtgg tcgagtcggc gcgcatcgac
 60
 ggggtgctcca acttccagat cttctggaag ctgatcgccc cgatggcgat gccggcgatg
 120
 gcggcggttcg cgaccctgca gttcctgtgg gtgtggaacg acctgctcat cgccaagctc
 180
 ttcttcacca acgacaaccc cacggtgatc gtcaagctcc aacagctttc cnngggcccc
 240
 aaggcccagg gtgcggagct gctgacggcg ggcgccttca tctccatcgt gctacccatg
 300
 atcgtcttct tcgtgctcca gaacttctct gtgcgcggta tgacgtcggg tgccgtcaag
 360

gggtgaccgc tcaactgcag tggcccggg
389

<210> 344
<211> 121
<212> PRT
<213> Homo sapiens

<400> 344
Val Leu Arg Asn Tyr Met Ala Ser Leu Pro Phe Ser Val Val Glu Ser
1 5 10 15
Ala Arg Ile Asp Gly Cys Ser Asn Phe Gln Ile Phe Trp Lys Leu Ile
20 25 30
Ala Pro Met Ala Met Pro Ala Met Ala Ala Phe Ala Thr Leu Gln Phe
35 40 45
Leu Trp Val Trp Asn Asp Leu Leu Ile Ala Lys Leu Phe Leu Thr Asn
50 55 60
Asp Asn Pro Thr Val Ile Val Lys Leu Gln Gln Leu Ser Xaa Gly Pro
65 70 75 80
Lys Ala Gln Gly Ala Glu Leu Leu Thr Ala Gly Ala Phe Ile Ser Ile
85 90 95
Val Leu Pro Met Ile Val Phe Phe Val Leu Gln Asn Phe Leu Val Arg
100 105 110
Gly Met Thr Ser Gly Ala Val Lys Gly
115 120

<210> 345
<211> 360
<212> DNA
<213> Homo sapiens

<400> 345
ctagtacttt atgctgatgg tgaacgtcgt tacatccttg cccctaaagg catgggttgct
60
ggatgatgtga tccaatctgg tgaagatgca tcaattaaag taggtaactg cttaccgatg
120
cgtaatatcc cagttgggtac aacagtagcac gctgtagaaa tgaaacctgc taaaggtgca
180
caaattgcac gttctgctgg ttcttacagc caaattatag ctctgatgg tgcttacgtt
240
actctacgtt tacgtagtgg tgaaatgcgt aaaatccctg ctgagtgtcg tgcaacaatc
300
ggatgaagttg gtaatgcaga acatattgcta cgtcaactag gtaaagctgg tgctacgcgt
360

<210> 346
<211> 120
<212> PRT
<213> Homo sapiens

<400> 346
Leu Val Leu Tyr Ala Asp Gly Glu Arg Arg Tyr Ile Leu Ala Pro Lys
1 5 10 15
Gly Met Val Ala Gly Asp Val Ile Gln Ser Gly Glu Asp Ala Ser Ile

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Lys | Val | Gly | Asn | Cys | Leu | Pro | Met | Arg | Asn | Ile | Pro | Val | Gly | Thr | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Val | His | Ala | Val | Glu | Met | Lys | Pro | Ala | Lys | Gly | Ala | Gln | Ile | Ala | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Ala | Gly | Ser | Tyr | Ser | Gln | Ile | Ile | Ala | Arg | Asp | Gly | Ala | Tyr | Val |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Thr | Leu | Arg | Leu | Arg | Ser | Gly | Glu | Met | Arg | Lys | Ile | Pro | Ala | Glu | Cys |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Arg | Ala | Thr | Ile | Gly | Glu | Val | Gly | Asn | Ala | Glu | His | Met | Leu | Arg | Gln |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Leu | Gly | Lys | Ala | Gly | Ala | Thr | Arg | | | | | | | | |
| | | 115 | | | | | 120 | | | | | | | | |

```
<210> 347
<211> 565
<212> DNA
<213> Homo sapiens
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<400> 347
accgggtgatg ccaaaggtgc tgtgacaagg ggattcatcg gttcggggcaa ggtcgtcacg
60
gcagctgccg tcatcatgat ttcgggtgttc gtcttcttca tccccgaggg catgaacgcc
120
atcaaggaaa tcgccctggc cctggccgtc gggatcctca cggatgcctt cttggtgctg
180
atgaccctcg tcccggccgt gatggccctg ctaggtgaca aggcattggtg gttgcccggg
240
tggctggatc gacgcctacc ccgcctcgac atcgaggag aagggatcac ccacgaggaa
300
aagctggccg cctggcccac agcggatcac accgaggccc tgcacgccga ggggatcggg
360
gtggaggggc tcttcgaagg cctcgatctg cacgtcgaac cgcgtcaggt gcaagccgtc
420
gtcggatcgc agaacagtgt ctcgccgtc ctgctggcga tcgggggacg gctgcccttg
480
gatcacggcc ggatgaggtc gggaggattg ctgctacccg agcgggcttc cagagtgcgt
540
cgggtgacgt ggttcctcga cgcgt
565

```

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<210> 348
<211> 188
<212> PRT
<213> Homo sapiens
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<400> 348

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Gly | Asp | Ala | Lys | Gly | Ala | Val | Thr | Arg | Gly | Phe | Ile | Gly | Ser | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Lys | Val | Val | Thr | Ala | Ala | Ala | Val | Ile | Met | Ile | Ser | Val | Phe | Val | Phe |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Phe | Ile | Pro | Glu | Gly | Met | Asn | Ala | Ile | Lys | Glu | Ile | Ala | Leu | Ala | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Val | Gly | Ile | Leu | Thr | Asp | Ala | Phe | Leu | Val | Arg | Met | Thr | Leu | Val |

| | | |
|---|-----|-----|
| 50 | 55 | 60 |
| Pro Ala Val Met Ala Leu Leu Gly Asp Lys Ala Trp Trp Leu Pro Gly | | |
| 65 | 70 | 75 |
| Trp Leu Asp Arg Arg Leu Pro Arg Leu Asp Ile Glu Gly Glu Gly Ile | | 80 |
| | 85 | 90 |
| Thr His Glu Glu Lys Leu Ala Ala Trp Pro Thr Ala Asp His Thr Glu | | 95 |
| | 100 | 105 |
| Ala Leu His Ala Glu Gly Ile Gly Val Glu Gly Leu Phe Glu Gly Leu | | 110 |
| | 115 | 120 |
| Asp Leu His Val Glu Pro Arg Gln Val Gln Ala Val Val Gly Ser Gln | | 125 |
| | 130 | 135 |
| Asn Ser Val Ser Ala Val Leu Leu Ala Ile Gly Gly Arg Leu Pro Leu | | 140 |
| | 145 | 150 |
| Asp His Gly Arg Met Arg Ser Gly Gly Leu Leu Leu Pro Glu Arg Ala | | 155 |
| | 160 | 165 |
| Ser Arg Val Arg Arg Val Thr Trp Phe Leu Asp Ala | | 170 |
| | 175 | 180 |
| | 185 | |

<210> 349

<211> 339

<212> DNA

<213> Homo sapiens

<400> 349

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ntgctggcca cggataatga ccgtactctg cgtgatgtcg ttgccgctga ccctacccat
60
gagctcgggt cggctaccgc tcatacgttt gcggacaatt tgccgttcct tcttaaactg
120
ctcgcggcag aagagccact atcgttgcag gctcatccca gtttggcgca agcacaggaa
180
gggtacgggc gggagaatcg caaaggggtg ccattagatg cccagaccg gaattaccac
240
gatcccaacc ataaaccgga gcttattggt gggctgacgc gattccacgc actagccggc
300
ttcctgaac cacaacgcac acttgagctt tttgacgcg
339

```

<210> 350

<211> 113

<212> PRT

<213> Homo sapiens

<400> 350

| | | |
|---|----|----|
| Xaa Leu Ala Thr Asp Asn Asp Arg Thr Leu Arg Asp Val Val Ala Ala | | |
| 1 | 5 | 10 |
| Asp Pro Thr His Glu Leu Gly Ser Ala Thr Ala His Thr Phe Ala Asp | | 15 |
| | 20 | 25 |
| Asn Leu Pro Phe Leu Leu Lys Leu Leu Ala Ala Glu Glu Pro Leu Ser | | 30 |
| | 35 | 40 |
| Leu Gln Ala His Pro Ser Leu Ala Gln Ala Gln Glu Gly Tyr Gly Arg | | 45 |
| | 50 | 55 |
| Glu Asn Arg Lys Gly Val Pro Leu Asp Ala Pro Asp Arg Asn Tyr His | | 60 |
| | 65 | 70 |
| Asp Pro Asn His Lys Pro Glu Leu Ile Val Gly Leu Thr Arg Phe His | | 75 |
| | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 85 | | 90 | | 95 | | | | | | | | | | |
| Ala | Leu | Ala | Gly | Phe | Arg | Glu | Pro | Gln | Arg | Thr | Leu | Glu | Leu | Phe | Asp |
| | 100 | | | | | | | 105 | | | | | 110 | | |
| Ala | | | | | | | | | | | | | | | |

<210> 351

<211> 354

<212> DNA

<213> Homo sapiens

<400> 351

gcgcgccccca gtgccgagac ccggggcttc aggagccggc cccgggagag aagagtgcgg
60
cggcggacgg agaaaacaac tccaaagttg gcgaaaggca ccgcccctac tcccgggctg
120
ccgcgccttc cccgccccca gccctggcat ccagagtacg ggtcgagccc gnggccatgg
180
agccccctg gggaggcggc accagggagc ctgggccccg gggctccgcc gcgaccccat
240
cgggtagacc acagaagctc cgggaccctt ccggcacctc tggacagccc aggatgctgt
300
tggccaccn ntcctcctcc tcctccttgg aggcgctctg gcccatccag accg
354

<210> 352

<211> 118

<212> PRT

<213> Homo sapiens

<400> 352

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Arg | Pro | Ser | Ala | Glu | Thr | Arg | Gly | Phe | Arg | Ser | Arg | Pro | Arg | Glu |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Arg | Arg | Val | Arg | Arg | Arg | Thr | Glu | Lys | Thr | Thr | Pro | Lys | Leu | Ala | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Thr | Ala | Pro | Thr | Pro | Gly | Leu | Pro | Pro | Pro | Pro | Arg | Pro | Gln | Pro |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Trp | His | Pro | Glu | Tyr | Gly | Ser | Ser | Pro | Xaa | Pro | Trp | Ser | Pro | Pro | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Glu | Ala | Ala | Pro | Gly | Ser | Leu | Gly | Pro | Gly | Ala | Pro | Pro | Arg | Pro | His |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Arg | Val | Asp | His | Arg | Ser | Ser | Gly | Thr | Leu | Pro | Ala | Pro | Leu | Asp | Ser |
| | | | | 85 | | | | 90 | | | | | 95 | | |
| Pro | Gly | Cys | Cys | Trp | Pro | Pro | Xaa | Pro | Pro | Pro | Pro | Pro | Trp | Arg | Arg |
| | | 100 | | | | | 105 | | | | | | 110 | | |
| Ser | Gly | Pro | Ser | Arg | Pro | | | | | | | | | | |
| | | | | | | | | | | | | | | | 115 |

<210> 353

<211> 1469

<212> DNA

<213> Homo sapiens

<400> 353

nntcatgaag gcttgaactt gcgtgatctt cagcctgcgg acctggcggg tgacggcggt
60
attgagccgg tggacctcgt ggtcggagat gtctctttta tctccttgac gatgatcctt
120
gaaccatttt cagctgttgt cagcccacac ggcctcatgc tgttgctggg gaagcctcaa
180
tttgaggttg gttgcaaggc tttgggagcc catggcggtg tcacggaccc ggccctgcgc
240
ttgcaggcca tcgcgggtgt catggcagca gcggtagatt tgggttggcg tatgcgtgac
300
gagtgcgata gcccgttgcc cgggcaggat ggaaacgttg agcacttcgt cttgctggaa
360
cgtacgggtc ggtgacagac gtccgggcat atcatgggccc gctactgtgg tcttgtgaac
420
gacacgagcc cttcgagata cgttgtcgtc gtcacccatg ccacgcggga cgacgctttt
480
gacgcggctg ccgaattcat ctctgaaatg gcggggagac acattgggtg cgcgggtccg
540
gatgatcagg tgaagccgat gtcaagcaag ctgccaggga tcgatcttga aagcttgagg
600
gagttcgccc acgaggcgga ggtggctcgtc gtctttggcg gcgacggcac gatcttgcca
660
gctgctgaat ggtcattacc tcgccacgtt cccatgattg gcgtcaacct tggccatgtc
720
ggttttcttg ctgagctgga gcgctccgat atggcgagtc tagtgaacaa ggtgtgttcg
780
cgcgactaca ccggtgagga tcgcctcgtg cttaaaacca ccgtcaccga gcattccgga
840
caacaccgtt ggagttcttt tgccgtcaac gagttgtctc tggaaaaggc agcccgccgg
900
cgcgtgctcg acgttctggc gtctgtcgac gagttgccgg tgcaacgctg gagttgcgac
960
gggatccttg tctcgacccc gaccggatcg acggcctacg cgttctcagc tggcgcccg
1020
gtcatgtggc ccgatctcga cgccatgctc atgggtgccg tgagcgctca cgctctcttt
1080
gtcgcaccgc tggatcatgag ccagctgct cgagtgagcc ttgacatcca gccagacggt
1140
tcagaatcgg cggttctgtg gtgcgacggg cgccgatcgt gcaccgtacg accgggggaa
1200
agaatcacgg tcgtccgcca tcccgaaccg ctgcgcattg ctcgtctggc cgcgcagccc
1260
ttcacatcgc gtctgggtcaa gaagtttgag ctcccggta gcgggtggcg tcagggtcgt
1320
gaccgtcatc acctagagga gacttcgtga tacgtagtgt gcgaattcgt ggactcggcg
1380
tcatcgatga gacggtcctc gaaccctcat ccgcgctgac ggagtcacc ggcgagaccg
1440
gcgccggaaa gaccatggtg gtcaccggt
1469

<210> 354

<211> 318

<212> PRT

<213> Homo sapiens

<400> 354

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Met Gly Arg Tyr Cys Gly Leu Val Asn Asp Thr Ser Pro Ser Arg Tyr
 1           5           10           15
Val Val Val Val Thr His Ala Thr Arg Asp Asp Ala Phe Asp Ala Ala
      20           25           30
Ala Glu Phe Ile Ser Glu Met Ala Gly Arg Asp Ile Gly Cys Ala Val
      35           40           45
Pro Asp Asp Gln Val Lys Pro Met Ser Ser Lys Leu Pro Gly Ile Asp
      50           55           60
Leu Glu Ser Leu Gly Glu Phe Ala His Glu Ala Glu Val Val Val Val
65           70           75           80
Phe Gly Gly Asp Gly Thr Ile Leu Arg Ala Ala Glu Trp Ser Leu Pro
      85           90           95
Arg His Val Pro Met Ile Gly Val Asn Leu Gly His Val Gly Phe Leu
      100          105          110
Ala Glu Leu Glu Arg Ser Asp Met Ala Asp Leu Val Asn Lys Val Cys
      115          120          125
Ser Arg Asp Tyr Thr Val Glu Asp Arg Leu Val Leu Lys Thr Thr Val
      130          135          140
Thr Glu His Ser Gly Gln His Arg Trp Ser Ser Phe Ala Val Asn Glu
145          150          155          160
Leu Ser Leu Glu Lys Ala Ala Arg Arg Arg Met Leu Asp Val Leu Ala
      165          170          175
Ser Val Asp Glu Leu Pro Val Gln Arg Trp Ser Cys Asp Gly Ile Leu
      180          185          190
Val Ser Thr Pro Thr Gly Ser Thr Ala Tyr Ala Phe Ser Ala Gly Gly
      195          200          205
Pro Val Met Trp Pro Asp Leu Asp Ala Met Leu Met Val Pro Leu Ser
      210          215          220
Ala His Ala Leu Phe Ala Arg Pro Leu Val Met Ser Pro Ala Ala Arg
225          230          235          240
Val Asp Leu Asp Ile Gln Pro Asp Gly Ser Glu Ser Ala Val Leu Trp
      245          250          255
Cys Asp Gly Arg Arg Ser Cys Thr Val Arg Pro Gly Glu Arg Ile Thr
      260          265          270
Val Val Arg His Pro Asp Arg Leu Arg Ile Ala Arg Leu Ala Ala Gln
      275          280          285
Pro Phe Thr Ser Arg Leu Val Lys Lys Phe Glu Leu Pro Val Ser Gly
      290          295          300
Trp Arg Gln Gly Arg Asp Arg His His Leu Glu Glu Thr Ser
305          310          315

```

<210> 355

<211> 558

<212> DNA

<213> Homo sapiens

<400> 355

```

nggatccac ctctggaat ggaaaccac ataccagttc tcttctcga tttgaatgcg
60
gatgacctca gtgccaatga gcagcttggt ggcccccatg catccggcgt gaactccatc
120

```

ctgccccagg agcatggcag ccagtttttc tacctgcca tcataaagca cagtgatgat
 180
 gaggtttcag ccacagcctc ttgggattcc tcggtgcatg attctgttca cttgaatggg
 240
 gtcacaccac agaatgaaag gatttaccta attgtgaaaa ccacagttca actcagccac
 300
 cctgctgcta tggagttagt attacgaaaa cgaattgcag ccaatattta caacaaacag
 360
 agtttcacgc agagtttgaa gaggagaata tccctgaaaa atatatttta ttctgtggt
 420
 gtaacctatg aaatagtatc caatatacca aaggcaactg aggagataga ggaccgggaa
 480
 acgctggctc tcctggcagc aaggagtga aacgaaggca catcagatgg gaagacgtac
 540
 attgagaagt acactcga
 558

<210> 356

<211> 186

<212> PRT

<213> Homo sapiens

<400> 356

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Ile | Pro | Pro | Pro | Gly | Met | Glu | Thr | His | Ile | Pro | Val | Leu | Phe | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asp | Leu | Asn | Ala | Asp | Asp | Leu | Ser | Ala | Asn | Glu | Gln | Leu | Val | Gly | Pro |
| | | 20 | | | | | | 25 | | | | 30 | | | |
| His | Ala | Ser | Gly | Val | Asn | Ser | Ile | Leu | Pro | Lys | Glu | His | Gly | Ser | Gln |
| | | 35 | | | | | 40 | | | | 45 | | | | |
| Phe | Phe | Tyr | Leu | Pro | Ile | Ile | Lys | His | Ser | Asp | Asp | Glu | Val | Ser | Ala |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Thr | Ala | Ser | Trp | Asp | Ser | Ser | Val | His | Asp | Ser | Val | His | Leu | Asn | Gly |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Val | Thr | Pro | Gln | Asn | Glu | Arg | Ile | Tyr | Leu | Ile | Val | Lys | Thr | Thr | Val |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Gln | Leu | Ser | His | Pro | Ala | Ala | Met | Glu | Leu | Val | Leu | Arg | Lys | Arg | Ile |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Ala | Asn | Ile | Tyr | Asn | Lys | Gln | Ser | Phe | Thr | Gln | Ser | Leu | Lys | Arg |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Arg | Ile | Ser | Leu | Lys | Asn | Ile | Phe | Tyr | Ser | Cys | Gly | Val | Thr | Tyr | Glu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ile | Val | Ser | Asn | Ile | Pro | Lys | Ala | Thr | Glu | Glu | Ile | Glu | Asp | Arg | Glu |
| 145 | | | | | 150 | | | | 155 | | | | | 160 | |
| Thr | Leu | Ala | Leu | Leu | Ala | Ala | Arg | Ser | Glu | Asn | Glu | Gly | Thr | Ser | Asp |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Gly | Lys | Thr | Tyr | Ile | Glu | Lys | Tyr | Thr | Arg | | | | | | |
| | | 180 | | | | | | 185 | | | | | | | |

<210> 357

<211> 323

<212> DNA

<213> Homo sapiens

<400> 357

acgcgtgcgt gtgttgtgtg agtcgggtgt gtgcatgcgt gtgggtgtgc agcaggtggg
 60
 gtacgatcag gctgaaggct gatcaggcac aaggctctgg gggagagccc tggttccagc
 120
 cctgggggtca gagcagcagg ggccagaaag acggcagggg tgagcactgc acccgctggg
 180
 cagggcaggg ccacagaagg cagggcatgg aggccacgtg aagggttga cagagtggat
 240
 ggatgtctcc ggaagcacct gcgtggccca gtcagcagga tcagactcgc atgtgtcagg
 300
 gtcaccatgg gtcagcgagg atn
 323

<210> 358
 <211> 102
 <212> PRT
 <213> Homo sapiens

<400> 358
 Met Val Thr Leu Thr His Ala Ser Leu Ile Leu Leu Thr Gly Pro Arg
 1 5 10 15
 Arg Cys Phe Arg Arg His Pro Ser Thr Leu Ser Ser Pro Ser Arg Gly
 20 25 30
 Leu His Ala Leu Pro Ser Val Ala Leu Pro Cys Pro Ala Gly Ala Val
 35 40 45
 Leu Thr Pro Ala Val Phe Leu Ala Pro Ala Ala Leu Thr Pro Gly Leu
 50 55 60
 Glu Pro Gly Leu Ser Pro Arg Ala Leu Cys Leu Ile Ser Leu Gln Pro
 65 70 75 80
 Asp Arg Thr Pro Pro Ala Ala His Pro His Ala Cys Thr His Pro Thr
 85 90 95
 His Thr Thr His Ala Arg
 100

<210> 359
 <211> 265
 <212> DNA
 <213> Homo sapiens

<400> 359
 acgcgtaccg acaagcgcgc ggtgatggcc gaccttcgcg aatcgggccc aatcgagcag
 60
 gatgcggaca tgatcgtctt catctaccgc gacgattact acaacaagga aaattcgccg
 120
 gacaaggggc tggccgagat catcatcggc aagcatcggg ggggccccac cggctcgtgc
 180
 aagctgaagt tcttcggcga gtacaccgt ttcgacaacc tggcccacaa ctcggttggt
 240
 tcgttcgaat aacggatgat tccgg
 265

<210> 360
 <211> 83
 <212> PRT

<213> Homo sapiens

<400> 360

```

Thr Arg Thr Asp Lys Arg Pro Val Met Ala Asp Leu Arg Glu Ser Gly
 1             5             10             15
Ala Ile Glu Gln Asp Ala Asp Met Ile Val Phe Ile Tyr Arg Asp Asp
          20             25             30
Tyr Tyr Asn Lys Glu Asn Ser Pro Asp Lys Gly Leu Ala Glu Ile Ile
          35             40             45
Ile Gly Lys His Arg Gly Gly Pro Thr Gly Ser Cys Lys Leu Lys Phe
          50             55             60
Phe Gly Glu Tyr Thr Arg Phe Asp Asn Leu Ala His Asn Ser Val Gly
65             70             75             80
Ser Phe Glu

```

<210> 361

<211> 453

<212> DNA

<213> Homo sapiens

<400> 361

```

gctttgcagg aggaaatctc tatctctggc tgcaagatga ggctgagcta cctgagcagc
60
cggacccctg gctacaaatc tgtcctgagg atcagcctca cccacccgac catccccctc
120
aacctcatga aggtgcacct catggtagcg gtggagggcc gcctcttcag gaagtgggtc
180
gctgcagccc cagacctgtc ctattatttc atttgggaca agacagacgt ctacaaccag
240
aaggtgtttg ggctttcaga agcctttggt tccgtggggt atgaatatga atcctgcccc
300
gatctaattc tgtgggaaaa aagaacaaca gtgctgcagg gctatgaaat tgacgcgtcc
360
aagcttgag gatggagcct agacaaacat catgccctca acattcaaag tggcatcctg
420
cacaaaggga atggngagaa ccagtttgtg tct
453

```

<210> 362

<211> 151

<212> PRT

<213> Homo sapiens

<400> 362

```

Ala Leu Gln Glu Glu Ile Ser Ile Ser Gly Cys Lys Met Arg Leu Ser
 1             5             10             15
Tyr Leu Ser Ser Arg Thr Pro Gly Tyr Lys Ser Val Leu Arg Ile Ser
          20             25             30
Leu Thr His Pro Thr Ile Pro Phe Asn Leu Met Lys Val His Leu Met
          35             40             45
Val Ala Val Glu Gly Arg Leu Phe Arg Lys Trp Phe Ala Ala Ala Pro
          50             55             60
Asp Leu Ser Tyr Tyr Phe Ile Trp Asp Lys Thr Asp Val Tyr Asn Gln

```

```

65          70          75          80
Lys Val Phe Gly Leu Ser Glu Ala Phe Val Ser Val Gly Tyr Glu Tyr
          85          90          95
Glu Ser Cys Pro Asp Leu Ile Leu Trp Glu Lys Arg Thr Thr Val Leu
          100          105          110
Gln Gly Tyr Glu Ile Asp Ala Ser Lys Leu Gly Gly Trp Ser Leu Asp
          115          120          125
Lys His His Ala Leu Asn Ile Gln Ser Gly Ile Leu His Lys Gly Asn
          130          135          140
Gly Glu Asn Gln Phe Val Ser
145          150

```

<210> 363

<211> 502

<212> DNA

<213> Homo sapiens

<400> 363

```

gggtacaaaaa aagtttgcca cagtattcac actccagggtc tccataaacc ttccagatcc
60
gctcacacaaa gctggtgttc atttgcttct tctgtaaaact gttcaggacc ttcataaaag
120
cggtgatgcc tgaccggtgc tcaggggcag ctttgcaaga gtcaggctga tgtgtgatgg
180
tgtccccacc accagctact ggagggagga ggtctgaggg ctcagctggg tttgacctga
240
gacacctgct gggatctggg tcaccagctg aaagcacagc catgttctgc cttcccccta
300
gggggctctg ggcgccatgg ctttcctgat ctgaccagc actctggggc ttggacagca
360
gtagtgtgat cacttcacct tgcgtctgga ctgagcttct gtgctgcatg tctgggggct
420
tctcaggagc agcatgagcc tctgcggagg aggtatcatt tttcaacaaa aaatcatctg
480
aaaccacctc ttgagaatgc ag
502

```

<210> 364

<211> 136

<212> PRT

<213> Homo sapiens

<400> 364

```

Met Gln His Arg Ser Ser Val Gln Thr Gln Gly Glu Val Ile Thr Leu
1          5          10          15
Leu Leu Ser Lys Ala Gln Ser Ala Gly Ser Asp Gln Glu Ser His Gly
          20          25          30
Ala Gln Ser Pro Leu Gly Glu Gly Gln Asn Met Ala Val Leu Ser Ala
          35          40          45
Gly Asp Pro Asp Pro Ser Arg Cys Leu Arg Ser Asn Pro Ala Glu Ala
          50          55          60
Ser Asp Leu Leu Pro Pro Val Ala Gly Gly Gly Asp Thr Ile Thr His
65          70          75          80
Gln Pro Asp Ser Cys Lys Ala Ala Pro Glu His Arg Ser Gly Ile Thr

```

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| | | | | 85 | | | | | 90 | | | | | 95 | | | | | |
| Ala | Phe | Met | Lys | Val | Leu | Asn | Ser | Leu | Gln | Lys | Lys | Gln | Met | Asn | Thr | | | | |
| | | | 100 | | | | | | 105 | | | | | 110 | | | | | |
| Ser | Leu | Cys | Glu | Arg | Ile | Trp | Lys | Val | Tyr | Gly | Asp | Leu | Glu | Cys | Glu | | | | |
| | | 115 | | | | | 120 | | | | | | 125 | | | | | | |
| Tyr | Cys | Gly | Lys | Leu | Phe | Trp | Tyr | | | | | | | | | | | | |
| | | 130 | | | | | 135 | | | | | | | | | | | | |

<210> 365

<211> 333

<212> DNA

<213> Homo sapiens

<400> 365

```

atctcaacgg atgcatccat caaggagatg atccccccag gtgctcttgt tatgctcaca
60
ccactgatcg ttgggattct atttgggggtt gagaccctct ctggagtcct tgctggtgcc
120
cttgtctctg gtgttcagat tgccatttct gcatccaaca ctgggtggtgc ctgggacaac
180
gccaagaagt acattgaggc tggagtttca gagcatgcca ggacccttgg cccaaaaggt
240
tctgaccctc acaaggcggc tgtcattggt gacaccattg gagatcctct caaggacacg
300
tctggccctt ccctcaacat cctcatcaag ctt
333

```

<210> 366

<211> 111

<212> PRT

<213> Homo sapiens

<400> 366

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| Ile | Ser | Thr | Asp | Ala | Ser | Ile | Lys | Glu | Met | Ile | Pro | Pro | Gly | Ala | Leu | | | | |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | | | | | |
| Val | Met | Leu | Thr | Pro | Leu | Ile | Val | Gly | Ile | Leu | Phe | Gly | Val | Glu | Thr | | | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | | | |
| Leu | Ser | Gly | Val | Leu | Ala | Gly | Ala | Leu | Val | Ser | Gly | Val | Gln | Ile | Ala | | | | |
| | | 35 | | | | 40 | | | | | | 45 | | | | | | | |
| Ile | Ser | Ala | Ser | Asn | Thr | Gly | Gly | Ala | Trp | Asp | Asn | Ala | Lys | Lys | Tyr | | | | |
| | | 50 | | | 55 | | | | | 60 | | | | | | | | | |
| Ile | Glu | Ala | Gly | Val | Ser | Glu | His | Ala | Arg | Thr | Leu | Gly | Pro | Lys | Gly | | | | |
| 65 | | | | 70 | | | | 75 | | | | | 80 | | | | | | |
| Ser | Asp | Pro | His | Lys | Ala | Ala | Val | Ile | Gly | Asp | Thr | Ile | Gly | Asp | Pro | | | | |
| | | | 85 | | | | 90 | | | | | 95 | | | | | | | |
| Leu | Lys | Asp | Thr | Ser | Gly | Pro | Ser | Leu | Asn | Ile | Leu | Ile | Lys | Leu | | | | | |
| | | | 100 | | | | 105 | | | | | | 110 | | | | | | |

<210> 367

<211> 381

<212> DNA

<213> Homo sapiens

<400> 367

gcgttcgtcg cactacccgg cggcggcgga acccttgacg agctactcga agcatggaca
60
tggcagcage tcggtgtaca cagcaaaccg gtgngccttg tacgactcga cnccttctgg
120
gcaccgctga cgcgctact caaccacatg accatcgaaa gcttcattcg ccctgaggac
180
cgcgcctcgc tcgtgatcgc cgataccata catcagctga tggccgatct tgagggatgg
240
accccaccac caccgaagtg gcgctcgtga catagaacaa atgattctga ctatggctca
300
ttgacatctg cgcagcggt actagctcca ttgacttcaa atcgggcctt ggccgaggt
360
cngttcaggt ggcccgaat g
381

<210> 368

<211> 89

<212> PRT

<213> Homo sapiens

<400> 368

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Phe | Val | Ala | Leu | Pro | Gly | Gly | Gly | Gly | Thr | Leu | Asp | Glu | Leu | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Glu | Ala | Trp | Thr | Trp | Gln | Gln | Leu | Gly | Val | His | Ser | Lys | Pro | Val | Xaa |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Val | Arg | Leu | Asp | Xaa | Phe | Trp | Ala | Pro | Leu | Thr | Ala | Leu | Leu | Asn |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| His | Met | Thr | Ile | Glu | Ser | Phe | Ile | Arg | Pro | Glu | Asp | Arg | Ala | Ser | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Val | Ile | Ala | Asp | Thr | Ile | His | Gln | Leu | Met | Ala | Asp | Leu | Glu | Gly | Trp |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Thr | Pro | Pro | Pro | Pro | Lys | Trp | Arg | Ser | | | | | | | |
| | | | | | 85 | | | | | | | | | | |

<210> 369

<211> 313

<212> DNA

<213> Homo sapiens

<400> 369

gatacatgat cctctcatat cgcacacaca ccgctccctt ctgccgcaat tcgcagacaa
60
acttgcgag gcttcacagc aagccgtcaa ggctgcttcc tgtgggctac cgatagtctc
120
gtacgcgagt tctcggacat caacgccaac gtcgggcaag atactgtcaa cgccatctac
180
acattctacg agcagcaagc gaccagtttc cttcgccagc tgaacgacct cccacccgaa
240
gagcttcccg acgtcatcga ggactttctc cgctgtcca ctgatgtcct tctttaccat
300
ttccagcaag ctt
313

<210> 370

<211> 101
 <212> PRT
 <213> Homo sapiens

<400> 370
 Ser Ser His Thr Ala His Thr Pro Leu Pro Ser Ala Ala Ile Arg Arg
 1 5 10 15
 Gln Thr Cys Ala Gly Phe Thr Ala Ser Arg Gln Gly Cys Phe Leu Trp
 20 25 30
 Ala Thr Asp Ser Leu Val Arg Glu Phe Ser Asp Ile Asn Ala Asn Val
 35 40 45
 Gly Gln Asp Thr Val Asn Ala Ile Tyr Thr Phe Tyr Glu Gln Gln Ala
 50 55 60
 Thr Ser Phe Leu Arg Gln Leu Asn Asp Leu Pro Pro Glu Glu Leu Pro
 65 70 75 80
 Asp Val Ile Glu Asp Phe Phe Arg Leu Ser Thr Asp Val Leu Leu Tyr
 85 90 95
 His Phe Gln Gln Ala
 100

<210> 371
 <211> 380
 <212> DNA
 <213> Homo sapiens

<400> 371
 atgacgggtc acgtcatcct ggcgattcca caggtggtga cgatcatgat cggcctcatc
 60
 tgcacgcca ttggcacggg ctttatcaag ccgaacctct ccacggtggt aggaggtctt
 120
 tacgatgacg gtgacccccg ccgcgatcag ggtttcctgt acttctacat gtcgatcagt
 180
 attggatctc tcttcgcgcc gatcgtcacc ggcctcctca aggaccatta cggctaccac
 240
 gtaggtttca ttgccgtgc tatcggtatg gctctgggtc tgategcctt cttccacggt
 300
 cgttccaaac tgcgtgagct cgccttcgac atccccaatc cgctggcccc cggcgagggt
 360
 cgccggatgg tgctccgcgg
 380

<210> 372
 <211> 126
 <212> PRT
 <213> Homo sapiens

<400> 372
 Met Thr Gly His Val Ile Leu Ala Ile Pro Gln Val Val Thr Ser Trp
 1 5 10 15
 Ile Gly Leu Ile Cys Ile Ala Ile Gly Thr Gly Phe Ile Lys Pro Asn
 20 25 30
 Leu Ser Thr Val Val Gly Gly Leu Tyr Asp Asp Gly Asp Pro Arg Arg
 35 40 45
 Asp Gln Gly Phe Leu Tyr Phe Tyr Met Ser Ile Ser Ile Gly Ser Leu

```

      50              55              60
Phe Ala Pro Ile Val Thr Gly Leu Leu Lys Asp His Tyr Gly Tyr His
65              70              75              80
Val Gly Phe Ile Ala Ala Ala Ile Gly Met Ala Leu Gly Leu Ile Ala
      85              90              95
Phe Phe His Gly Arg Ser Lys Leu Arg Glu Leu Ala Phe Asp Ile Pro
      100              105              110
Asn Pro Leu Ala Pro Gly Glu Gly Arg Arg Met Val Leu Arg
      115              120              125

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<210> 373
 <211> 475
 <212> DNA
 <213> Homo sapiens

```

<400> 373
acatgttgga aaaattgcct cccactctgg tgctacaggt atgaatctca gccacagtga
60
tgactgtggc agctacaggc ctgatgaaca cccaccaag aaaaggagca tcatgtgcct
120
gcttctctct ggttcctaaa tcctttggcc aaacattttc cccacaaccc tccactccag
180
ttggctggtc actgcctctc agaaagaagt cccagggtccc tgtcagcccc agagcgccctg
240
catggactct gccactgtc cctttccaac acggaggccc ccaattctgg ggaccctac
300
accctaccct gtaccaccac atccccatgc ctgctccaga cagcactaac ctcccatgac
360
agtgggacca aagcagttct taaaggtcca atccactcag ttcttaaagt aaaaacagtt
420
gccccatgagt ccccccaaa gacgtccgca catatgccaa acattcggtg tgcac
475

```

<210> 374
 <211> 109
 <212> PRT
 <213> Homo sapiens

```

<400> 374
Met Gly Met Trp Trp Tyr Arg Val Gly Cys Arg Gly Pro Gln Asn Trp
1      5      10      15
Gly Pro Pro Cys Trp Lys Gly Thr Val Gly Arg Val His Ala Gly Ala
      20      25      30
Leu Gly Leu Thr Gly Thr Trp Asp Phe Phe Leu Arg Gly Ser Asp Gln
      35      40      45
Pro Thr Gly Val Glu Gly Cys Gly Glu Asn Val Trp Pro Lys Asp Leu
      50      55      60
Gly Thr Arg Glu Lys Gln Ala His Asp Ala Pro Phe Leu Gly Gly Val
65      70      75      80
Phe Ile Arg Pro Val Ala Ala Thr Val Ile Thr Val Ala Glu Ile His
      85      90      95
Thr Cys Ser Thr Arg Val Gly Gly Asn Phe Ser Asn Met
      100      105

```

<210> 375
 <211> 332
 <212> DNA
 <213> Homo sapiens

<400> 375
 nnacgcgtcg cctccacctc gaaacccgcc ggcggtcgtt ttttcacat gcccgaccgc
 60
 aaggcccaag ttgcgacggt cacggacacg ctgtatttca cgccgtcgca atgggatgga
 120
 tgcattggcac ggatgcgtgg ggataagata tcagcactga agtggaatca gatgcagatg
 180
 gcggcatgct ccttcatagc ggcagtgggt gcgaagctgg gctgcccga gcgcactatg
 240
 ggcacggcgc agctgctgta ccagcgtttc catctatttc atgcgccgac tgagttttcg
 300
 ttacatgagg tggctttgac gtgtctcttc ac
 332

<210> 376
 <211> 110
 <212> PRT
 <213> Homo sapiens

<400> 376
 Xaa Arg Val Ala Ser Thr Ser Lys Pro Ala Gly Gly Arg Phe Phe Thr
 1 5 10 15
 Met Ala Asp Arg Lys Ala Gln Val Ala Thr Val Thr Asp Thr Leu Tyr
 20 25 30
 Phe Thr Pro Ser Gln Trp Asp Gly Cys Met Ala Arg Met Arg Gly Asp
 35 40 45
 Lys Ile Ser Ala Leu Lys Trp Asn Gln Met Gln Met Ala Ala Cys Ser
 50 55 60
 Phe Ile Ala Ala Val Gly Ala Lys Leu Gly Cys Pro Gln Arg Thr Met
 65 70 75 80
 Gly Thr Ala Gln Leu Leu Tyr Gln Arg Phe His Leu Phe His Ala Pro
 85 90 95
 Thr Glu Phe Ser Leu His Glu Val Ala Leu Thr Cys Leu Phe
 100 105 110

<210> 377
 <211> 369
 <212> DNA
 <213> Homo sapiens

<400> 377
 cgcgtgccag gtatgtcaac tgatctgtcg gatatttccg aggttgagta ccgtcaactg
 60
 aggctggaac gagggtgct gtgttcggtg tggactcagg gaactgccgc agacgccgag
 120
 aacgctatgg cggagctgaa agcccttgct gaaacggcgg gatctcaggt actcgaagct
 180
 gtcattgcaac gtcggactac cccggatccg gcgacgtaca ttgggttcggg caaggtggct
 240

gagcttgccg aggtggtgcg ggcgactggt gccgatactg tcatttgtga cggatgaactt
 300
 gacgccgctc agttgcgcaa cctcgaggat cgggtcaagn gcaaagttgt ggaccgggtcg
 360
 gtctgattc
 369

<210> 378

<211> 121

<212> PRT

<213> Homo sapiens

<400> 378

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Val | Pro | Gly | Met | Ser | Thr | Asp | Leu | Ser | Asp | Ile | Ser | Glu | Val | Glu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Tyr | Arg | Gln | Leu | Arg | Leu | Glu | Arg | Val | Val | Leu | Cys | Ser | Val | Trp | Thr |
| | | 20 | | | | | 25 | | | | | | 30 | | |
| Gln | Gly | Thr | Ala | Ala | Asp | Ala | Glu | Asn | Ala | Met | Ala | Glu | Leu | Lys | Ala |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Leu | Ala | Glu | Thr | Ala | Gly | Ser | Gln | Val | Leu | Glu | Ala | Val | Met | Gln | Arg |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Arg | Thr | Thr | Pro | Asp | Pro | Ala | Thr | Tyr | Ile | Gly | Ser | Gly | Lys | Val | Ala |
| 65 | | | | 70 | | | | | | 75 | | | | | 80 |
| Glu | Leu | Ala | Glu | Val | Val | Arg | Ala | Thr | Gly | Ala | Asp | Thr | Val | Ile | Cys |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Asp | Gly | Glu | Leu | Asp | Ala | Ala | Gln | Leu | Arg | Asn | Leu | Glu | Asp | Arg | Val |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Lys | Xaa | Lys | Val | Val | Asp | Arg | Ser | Val | | | | | | | |
| | | 115 | | | | | 120 | | | | | | | | |

<210> 379

<211> 408

<212> DNA

<213> Homo sapiens

<400> 379

acgcgttact taaacttatac tgtaaataat aaattcatta tttctagttg gttagggtact
 60
 atgggctgtg gtttaccagg tgctatggca gctaaaattg cttatccaaa ccgtcaagca
 120
 gtagctatca caggcgacgg tgcgttccaa atggtaatgc aagactttgc tacagctggt
 180
 caatataact taccaatgac aatctttgta ttaaataaca aacaattgtc attcattaaa
 240
 tatgaacaac aagctgctgg tgaattagag tatgccattg atttctctga tatggatcat
 300
 gctaaaatttg ctgaagctgc tgggtggtaaa ggctatgttg tgagagatgt aagtcgtctt
 360
 gacgacatcg ttgaagaggc aatggctcaa gatgttccaa caatcggt
 408

<210> 380

<211> 136

<212> PRT

<213> Homo sapiens

<400> 380

```

Thr Arg Tyr Leu Asn Leu Ser Val Asn Asn Lys Phe Ile Ile Ser Ser
 1           5           10           15
Trp Leu Gly Thr Met Gly Cys Gly Leu Pro Gly Ala Met Ala Ala Lys
 20           25           30
Ile Ala Tyr Pro Asn Arg Gln Ala Val Ala Ile Thr Gly Asp Gly Ala
 35           40           45
Phe Gln Met Val Met Gln Asp Phe Ala Thr Ala Val Gln Tyr Asn Leu
 50           55           60
Pro Met Thr Ile Phe Val Leu Asn Asn Lys Gln Leu Ser Phe Ile Lys
 65           70           75           80
Tyr Glu Gln Gln Ala Ala Gly Glu Leu Glu Tyr Ala Ile Asp Phe Ser
 85           90           95
Asp Met Asp His Ala Lys Phe Ala Glu Ala Ala Gly Gly Lys Gly Tyr
 100          105          110
Val Val Arg Asp Val Ser Arg Leu Asp Asp Ile Val Glu Glu Ala Met
 115          120          125
Ala Gln Asp Val Pro Thr Ile Val
 130          135

```

<210> 381

<211> 613

<212> DNA

<213> Homo sapiens

<400> 381

```

naccggtcat aggcgggccc agtgaagac caccgaaca cagttggtg agatccgct
60
tgagggaag gtcctgcgcg tccgcgaaa tctggtaag gcctaccact ctgggctgat
120
cgacgtcgag gactgaaccc tgggagcctg ggcggtccag catgactgct caggctcatt
180
acaaaaacgc gtcgatcccg tagggttgct gtcatagaca agcccgaagt gaccctgccc
240
gattccgccc ccgacgacct cgtcgttgag gacatcacca tcggcgacgg ccctgaagcg
300
tccgctggca acctcgtcga agtgactac gtcggcgtgg ccttaagcaa tggtcgtgag
360
ttcgattctt cctggaaccg cggggagccg ctgaccttcc aactaggggc tggccaggtg
420
atccccgagt gggatgaagg tgtccaagg atgaaggctg gtggacgacg caaactcgtc
480
atccccacc accttgctta cgggtccgaa ggaatctccg gtgtgatcgc tggcggtag
540
acgtggtct tcgtctgca ccttgtaac atcatctgac gtgacccccg ctcaagcagt
600
cttcgcgccc ggg
613

```

<210> 382

<211> 137

<212> PRT

<213> Homo sapiens

<400> 382

```

Leu Leu Arg Leu Ile Thr Lys Thr Arg Arg Ser Arg Arg Val Val Val
 1           5           10           15
Met Ser Lys Pro Glu Val Thr Leu Pro Asp Ser Ala Pro Asp Asp Leu
 20           25           30
Val Val Glu Asp Ile Thr Ile Gly Asp Gly Pro Glu Ala Ser Ala Gly
 35           40           45
Asn Leu Val Glu Val His Tyr Val Gly Val Ala Leu Ser Asn Gly Arg
 50           55           60
Glu Phe Asp Ser Ser Trp Asn Arg Gly Glu Pro Leu Thr Phe Gln Leu
 65           70           75           80
Gly Ala Gly Gln Val Ile Pro Glu Trp Asp Glu Gly Val Gln Gly Met
 85           90           95
Lys Val Gly Gly Arg Arg Lys Leu Val Ile Pro His His Leu Ala Tyr
 100          105          110
Gly Pro Gln Gly Ile Ser Gly Val Ile Ala Gly Gly Glu Thr Leu Val
 115          120          125
Phe Val Cys Asp Leu Val Asn Ile Ile
 130          135

```

<210> 383

<211> 352

<212> DNA

<213> Homo sapiens

<400> 383

```

nggagcaaca cctggtcctt gggaatgaag tgtaggagtt gcatttgctg aggttggtgt
60
ttgccaaaga gatgccagct tcttcgaact actgctgtgc aactcttcat gttcaaaacc
120
cagttttctg tttttcacac ctgaacatac accccctgc agttgggtgg ctccccggtt
180
accagctggg ctctatctac agagagagca atggcttccc ttcccttgaa ggaagtctca
240
ccctcacaag gacacttgat ccgctgcaaa gcagaaagtg tgcggaccct ttgggaaggg
300
cgttcttttc ttgtttagaa cctaggattc tgtttttccc aaacaggatc an
352

```

<210> 384

<211> 93

<212> PRT

<213> Homo sapiens

<400> 384

```

Met Pro Ala Ser Ser Asn Tyr Cys Cys Ala Thr Leu His Val Gln Asn
 1           5           10           15
Pro Val Phe Cys Phe Ser His Leu Asn Ile His Pro Pro Ala Val Gly
 20           25           30
Trp Leu Pro Arg Tyr Gln Leu Gly Ser Ile Tyr Arg Glu Ser Asn Gly
 35           40           45
Phe Pro Ser Leu Glu Gly Ser Leu Thr Leu Thr Arg Thr Leu Asp Pro

```

```

      50              55              60
Leu Gln Ser Arg Lys Cys Ala Asp Pro Leu Gly Arg Ala Phe Phe Ser
65              70              75              80
Cys Leu Glu Pro Arg Ile Leu Phe Phe Pro Asn Arg Ile
      85              90

```

<210> 385
 <211> 342
 <212> DNA
 <213> Homo sapiens

```

<400> 385
gccggcgcca cgaaatgcaa aatgcgcctt tcaccggacg ccagggtgat cgagccgcca
60
gcacctcggg caatgtcctg ggctgactg gcacacgcaa tcaaagcgag caacaacaca
120
caaaaacgca tcatgaggca gacgccaggg aagtgcagaga agccgcagca ggcgcgcggc
180
gattggaaat atcggtgagg ctaatggtca ccagcgcttg caggttgat tccgtggcca
240
attcgcgga cgcagcacc gccagttcca gtcgcccgcg cagcaccagg cgacgcaagc
300
tgcggcgcaa ctccgggtgc accaacaaca ccgcactgtt ca
342

```

<210> 386
 <211> 109
 <212> PRT
 <213> Homo sapiens

```

<400> 386
Met Gln Asn Ala Pro Phe Thr Gly Arg Gln Val Asp Arg Ala Ala Ser
1      5      10      15
Thr Ser Gly Asn Val Leu Gly Leu Thr Gly Thr Arg Asn Gln Ser Glu
      20      25      30
Gln Gln His Thr Lys Thr His His Glu Ala Asp Ala Arg Glu Val Thr
      35      40      45
Glu Ala Ala Ala Gly Ala Arg Arg Leu Glu Ile Ser Val Arg Leu Met
      50      55      60
Val Thr Ser Ala Cys Arg Leu Tyr Ser Val Ala Asn Ser Arg Asn Asp
65      70      75      80
Ser Thr Ala Ser Ser Ser Ser Pro Arg Ser Thr Arg Arg Arg Lys Leu
      85      90      95
Arg Arg Asn Ser Gly Cys Thr Asn Asn Thr Ala Leu Phe
      100      105

```

<210> 387
 <211> 379
 <212> DNA
 <213> Homo sapiens

```

<400> 387
acgcgtgacg cgccggcatc ggaagcggtg actgcagaga agaccgcgca cgtggctgtg
60

```

ggacgtgctg gcacgtctga catggtgcgt ggacccgcct tctcttcgcc tgcgcacgcc
 120
 atgcaagagg agcttgacaa tgtgcgtgat ctgcgccatg cgcggcagca agcgctcgat
 180
 gctgttcggt ccgagctgct cgaagcgcag caagcatgtg cctcgtgcca gctgcagctg
 240
 cagcatgtgc cagatgatcg tgtgcgagcg catcccatat accaggcgct ccatgcggac
 300
 gttgcttaca tgcagcaaga acttgatcac gtacgagacg cattggcttc ggcagaatct
 360
 gagaatgcga gcctgcgcg
 379

<210> 388

<211> 114

<212> PRT

<213> Homo sapiens

<400> 388

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Arg | Leu | Val | Arg | Asp | Gln | Val | Leu | Ala | Ala | Cys | Lys | Gln | Arg | Pro |
| 1 | | | 5 | | | | | 10 | | | | | 15 | | |
| His | Gly | Ala | Pro | Gly | Ile | Trp | Asp | Ala | Leu | Ala | His | Asp | His | Leu | Ala |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| His | Ala | Ala | Ala | Ala | Ala | Gly | Thr | Arg | His | Met | Leu | Ala | Ala | Leu | Arg |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Ala | Ala | Arg | Asn | Glu | Gln | His | Arg | Ala | Leu | Ala | Ala | Ala | His | Gly | Arg |
| | 50 | | | | 55 | | | | 60 | | | | | | |
| Asp | His | Ala | His | Cys | Gln | Ala | Pro | Leu | Ala | Trp | His | Ala | Gln | Ala | Lys |
| 65 | | | | 70 | | | | 75 | | | | | 80 | | |
| Arg | Arg | Arg | Val | His | Ala | Pro | Cys | Gln | Thr | Cys | Gln | His | Val | Pro | Gln |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Pro | Arg | Ala | Arg | Ser | Ser | Leu | Gln | Ser | Thr | Leu | Pro | Met | Pro | Ala | Arg |
| | | 100 | | | | | 105 | | | | | 110 | | | |
| His | Ala | | | | | | | | | | | | | | |

<210> 389

<211> 382

<212> DNA

<213> Homo sapiens

<400> 389

ngatggccga ctgtcccact gtcagtacgc gaagctcgcc gtcgagtcgg tccacgtccg
 60
 ggctcccccac gtgctccgca accctccgaa gcgatgacct ggccccggggg cggcaacgag
 120
 gtattgcgtt tggagacgct tgggggtcaat tacggccagg tgcgcgccgt cgatgccctg
 180
 acgaccaccg tagagcgcg caccatcacc tgctcatgg gtcgaaatgg atcaggcaag
 240
 tcgtctctga tgtggggcgat ccaaggggca acaaagtcct cagggagggt actggtcaac
 300
 cacgagggtt cttgggctga cccccgaaa gccgacgccg cgaccgctcg acgaatggtg
 360

agcttagtcc cgcagtcagc cn
382

<210> 390

<211> 127

<212> PRT

<213> Homo sapiens

<400> 390

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Trp | Pro | Thr | Val | Pro | Leu | Ser | Val | Arg | Glu | Ala | Arg | Arg | Arg | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Pro | Arg | Pro | Gly | Leu | Pro | Arg | Ala | Pro | Gln | Pro | Ser | Glu | Ala | Met |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Trp | Pro | Gly | Gly | Gly | Asn | Glu | Val | Leu | Arg | Leu | Glu | Thr | Leu | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Val | Asn | Tyr | Gly | Glu | Val | Arg | Ala | Val | Asp | Ala | Leu | Thr | Thr | Thr | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Glu | Arg | Gly | Thr | Ile | Thr | Cys | Leu | Met | Gly | Arg | Asn | Gly | Ser | Gly | Lys |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ser | Ser | Leu | Met | Trp | Ala | Ile | Gln | Gly | Ala | Thr | Lys | Ser | Ser | Gly | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Val | Leu | Val | Asn | His | Glu | Gly | Ser | Trp | Ala | Asp | Pro | Arg | Lys | Ala | Asp |
| | | | 100 | | | | | | 105 | | | | 110 | | |
| Ala | Ala | Thr | Ala | Arg | Arg | Met | Val | Ser | Leu | Val | Pro | Gln | Ser | Ala | |
| | | | 115 | | | | 120 | | | | | 125 | | | |

<210> 391

<211> 456

<212> DNA

<213> Homo sapiens

<400> 391

nnacgcgttg ccgctctgtg aggcgcctat cacggtgaca ctctcgggtgc tatgagcgtg
60
tgcgacccta tcggtggcat gcacgccttg ttcagcgact ctattcccca gcagatcttc
120
ctgcccgcgc cctccttctt tcgccgccga cgaggccgac gtggagacgt ggtgcagcga
180
ggccgatgaa tcctggacac ccaccgcgac gacctggccg ggatcattgt cgagcccatc
240
ttgcaaggag ccggaggcat gtggccgtgg tctccgtcct gtctgaagca cctgcgccgt
300
cgtgctgatg aacttgacct agttcttctc gccgacgagg tcgctactgg atttgggccc
360
actggcaaac ttttcgcatg cgagtgggcc gatatcgctc ctgacatcat ggtggttggg
420
aaatccatga ctggcggata cctgaccag tcggcc
456

<210> 392

<211> 55

<212> PRT

<213> Homo sapiens

<400> 392

Gly Ala Tyr His Gly Asp Thr Leu Gly Ala Met Ser Val Cys Asp Pro
 1 5 10 15
 Ile Gly Gly Met His Ala Xaa Phe Ser Asp Ser Ile Pro Gln Gln Ile
 20 25 30
 Phe Leu Pro Ala Pro Ser Phe Phe Arg Arg Arg Arg Gly Arg Arg Gly
 35 40 45
 Asp Val Val Gln Arg Gly Arg
 50 55

<210> 393

<211> 371

<212> DNA

<213> Homo sapiens

<400> 393

nacgcgttgc tcgtcattgg tggctactcg gcctacgaag gtatctacac catgatgact
 60
 gagcgggacc ggtacccggc tttccgtatt ccgacgggtg gcatcccggc ttctatcgac
 120
 aacaacctcc ccggttcgga actgtccatc ggcaccgaca ccgctctcaa cgtcatcgtc
 180
 gaggcgatgg acaagattaa ggagtcgggt atcgcggtcca gacgctgctt cgtcgtcgag
 240
 acgatgggtc gtgactgcgg atacctcgcg ttgatgtcgg gtatcgcagc tggcgtgag
 300
 cggatctata ccaacgagga cggtatctcc ctggacgac tagccaacga cgtccattgg
 360
 ttgcgggagt c
 371

<210> 394

<211> 123

<212> PRT

<213> Homo sapiens

<400> 394

Xaa Ala Leu Leu Val Ile Gly Gly Tyr Ser Ala Tyr Glu Gly Ile Tyr
 1 5 10 15
 Thr Met Met Thr Glu Arg Asp Arg Tyr Pro Ala Phe Arg Ile Pro Thr
 20 25 30
 Val Cys Ile Pro Ala Ser Ile Asp Asn Asn Leu Pro Gly Ser Glu Leu
 35 40 45
 Ser Ile Gly Thr Asp Thr Ala Leu Asn Val Ile Val Glu Ala Met Asp
 50 55 60
 Lys Ile Lys Glu Ser Gly Ile Ala Ser Arg Arg Cys Phe Val Val Glu
 65 70 75 80
 Thr Met Gly Arg Asp Cys Gly Tyr Leu Ala Leu Met Ser Gly Ile Ala
 85 90 95
 Ala Gly Ala Glu Arg Ile Tyr Thr Asn Glu Asp Gly Ile Ser Leu Asp
 100 105 110
 Asp Leu Ala Asn Asp Val His Trp Leu Arg Glu
 115 120

<210> 395
 <211> 351
 <212> DNA
 <213> Homo sapiens

<400> 395
 gaattctagt tgggagattc attgaccaga cttttggaat aaacactagt catcatgcta
 60
 gcgacaggtg gtcttgtgca tggtagaaag gcagtccaag cctatgtctc tgaaacctgc
 120
 tctcatttct gttttctact ttacgattta tggtatctca tactcccat gttgcctggt
 180
 ctccagtttt tttacttgtg ttatttccat tcttctatcc ctgctcaatt tctgcctcag
 240
 ggcagaattg tgtccaacag ctcttaaagt cagcgcagaa actgtgatgt taaaaacatc
 300
 ttgttatccg gccccaaaac atgttgtcct tggtaactct tactggtttg t
 351

<210> 396
 <211> 90
 <212> PRT
 <213> Homo sapiens

<400> 396
 Met Val Glu Arg Gln Ser Lys Pro Met Ser Leu Lys Pro Ala Leu Ile
 1 5 10 15
 Ser Val Phe Tyr Phe Thr Ile Tyr Val Ile Ser Tyr Ser Pro Cys Cys
 20 25 30
 Leu Phe Ser Ser Phe Phe Thr Cys Val Ile Ser Ile Leu Leu Phe Leu
 35 40 45
 Leu Asn Phe Cys Leu Arg Ala Glu Leu Cys Pro Thr Ala Leu Lys Cys
 50 55 60
 Ser Ala Glu Thr Val Met Leu Lys Thr Ser Cys Tyr Pro Ala Pro Lys
 65 70 75 80
 His Val Val Leu Gly Asn Ser Tyr Trp Phe
 85 90

<210> 397
 <211> 483
 <212> DNA
 <213> Homo sapiens

<400> 397
 gccgtcatta aagagatcac ccctctcctc caacctggtg atgtcctcgt cgacggtggt
 60
 aatgcttatt ttggtgatac ccgccgccgt gaggaggaaa tacgtccac cggcattcac
 120
 tatgttggtg ctggcatctc cgggtggggga gtcggggccc tgagggtccc atcaattatg
 180
 cctggcgggg ttaaggaatc ttacgaaatc atcggaccgg tcttagaaaa aatctccgcc
 240
 cagtcgacg gtgaaccctg ctgcgcatgg atgggtactg acggcgccgg acacttcgtc
 300

aagatggtcc ataatggcat cgagtaagcc gatatgcagt tcattggcga ggcgcccttc
 360
 ctttttgcgn tgcccgccgg tttgaccaat gctgaggccg ccgatgcctt cgagtcgtgg
 420
 aaccatggcg acctcaattc ctacctcgtc gaaatcactt ctcgggtact gcgtgccaag
 480
 gat
 483

<210> 398

<211> 161

<212> PRT

<213> Homo sapiens

<400> 398

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Val | Ile | Lys | Glu | Ile | Thr | Pro | Leu | Leu | Gln | Pro | Gly | Asp | Val | Leu |
| 1 | | | 5 | | | | | 10 | | | | | 15 | | |
| Val | Asp | Gly | Gly | Asn | Ala | Tyr | Phe | Gly | Asp | Thr | Arg | Arg | Arg | Glu | Glu |
| | 20 | | | | | | | 25 | | | | 30 | | | |
| Glu | Ile | Arg | Pro | Thr | Gly | Ile | His | Tyr | Val | Gly | Thr | Gly | Ile | Ser | Gly |
| | 35 | | | | | 40 | | | | | 45 | | | | |
| Gly | Gly | Val | Gly | Ala | Leu | Arg | Val | Pro | Ser | Ile | Met | Pro | Gly | Gly | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Lys | Glu | Ser | Tyr | Glu | Ile | Ile | Gly | Pro | Val | Leu | Glu | Lys | Ile | Ser | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| His | Val | Asp | Gly | Glu | Pro | Cys | Cys | Ala | Trp | Met | Gly | Thr | Asp | Gly | Ala |
| | | | 85 | | | | | | 90 | | | | 95 | | |
| Gly | His | Phe | Val | Lys | Met | Val | His | Asn | Gly | Ile | Glu | Tyr | Ala | Asp | Met |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gln | Phe | Ile | Gly | Glu | Ala | Pro | Phe | Leu | Phe | Ala | Xaa | Pro | Ala | Gly | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Thr | Asn | Ala | Glu | Ala | Ala | Asp | Ala | Phe | Glu | Ser | Trp | Asn | His | Gly | Asp |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Leu | Asn | Ser | Tyr | Leu | Val | Glu | Ile | Thr | Ser | Arg | Val | Leu | Arg | Ala | Lys |
| 145 | | | | 150 | | | | | | 155 | | | | | 160 |

Asp

<210> 399

<211> 314

<212> DNA

<213> Homo sapiens

<400> 399

nngggaatga agaccaccca gcccttcctt tcttcaaate ttctccaggc ttctgtgcat
 60
 ggctcatcca cccatccact cattcaccca tctatccatc cactcatcca cccatccagt
 120
 cattcactca ttgttccatc cactcatgta cccatccact cattcgccca tttatccatc
 180
 cactcaacca tccactcatc caccatcca nctcatcatc cgtccagtca cccatctatc
 240
 caccatgta tccatccact catccaccca tccactcatc tgtccatcca cttatccacc
 300

catctactca ccca
314

<210> 400
<211> 104
<212> PRT
<213> Homo sapiens

<400> 400
Xaa Gly Met Lys Thr Thr Gln Pro Phe Leu Ser Ser Asn Leu Leu Gln
1 5 10 15
Ala Ser Val His Gly Ser Ser Thr His Pro Leu Ile His Pro Ser Ile
20 25 30
His Pro Leu Ile His Pro Ser Ser His Ser Leu Ile Cys Pro Ser Thr
35 40 45
His Val Pro Ile His Ser Phe Ala His Leu Ser Ile His Ser Thr Ile
50 55 60
His Ser Ser Thr His Pro Xaa His His Pro Ser Ser His Pro Ser Ile
65 70 75 80
His Pro Cys Ile His Pro Leu Ile His Pro Ser Thr His Leu Ser Ile
85 90 95
His Leu Ser Thr His Leu Leu Thr
100

<210> 401
<211> 2165
<212> DNA
<213> Homo sapiens

<400> 401
gagaaaatgg aactacctgt atataaatta ggtgagcaaa cagtgatata ggtagtttta
60
agaagcaaat atatacagtc aatttaacag tgtttacttc tctggattgt ttaatgggtg
120
caaaatgaaa gatctattga agtttcacta tacattgcat tgattgaacc ttggagagtt
180
ttatgaaaaa gaggggcatc ccttgccatc tgtttgccag tcttccttgc cccttccttt
240
gaaatgcctg cctctttttt gccagattg tttcctgacc atccgaactc agatggggtc
300
ctctaagttc ttctggata ttcacaaatc ccttcacaag gccacagtgc gaagtgaatg
360
atctggaggt gcctgggcat ctgtgttga agggagtcaa gactcaccag ccagtcagtt
420
tgtgggctac agttgtccca caaaaatcag gcatgttcac ctccctctg gggccctaca
480
gctgggactg atcatagcct cagattagaa gaaatactga cttctaactc tataagccag
540
cactcctggg taaggagtga agctctgttg gccatgccgc tttggactgc tgggcagagc
600
tgagcctaca gttttgtact ggggtgcacg gatgacagct gggaagatgg aaaggcagct
660
tgaggattta tagcagctaa agggtaaatg ctgttatgca aaaggcccc atatgaactt
720

cctacaggtg tagccgcagc caagtgtctg tacagctgct gagaatttgt cggatgatga
780
aaaattcctc tttgcatcac aagcgagtgg aaagccaggg gctgcatgag tggagaaagc
840
acagtctggt ttttcaagta ctgcagagaa tgagaatacc cagccgggag cctggagttg
900
aggcccaggt tacacaggct cccggaatac agacctggga agatagggga ggagagggga
960
agcttgtggc cttttgatcc gccccggaa tgcccaccgt gcgctgcttt gctgccttca
1020
tctctgctc agaggccttc tccttcccag agacctcctt ggatgggtct aaggagagaca
1080
ctgcccgggc ctttttccct gcaatcaciaa ggtccaaatc ctccaggctg cgcttgatcg
1140
gccgcgccgc cccaatgttc tacgggtca tttccgggtg caggattggg tggaccatgc
1200
cttccatctt cctgaaattc tccagtctca catggtgagg ttttctgat cttgaaagcg
1260
attcagggtg ttttttaggg cctgacatgg tcatgggtga taccgcacag gctttggggt
1320
gacagtctcg actctggctg cctaagacct ggaactggga gatgcctttg ctctcctggg
1380
gccctgtggt ggaatgagcc aggcccagga ccttgccggg aggtttgtgc gggttcttgg
1440
gaaggctcag atctgtaggc tgatcatccg taggggcttc tgctgccgcc gactttttgt
1500
cttgacaggtg cagggacgtg agataattta catggagctt ttcttggtgt ctgtgggaag
1560
gaaaagaact gttttccgat tcctgtaca tgtccctgga agggatattg gatgtctgtt
1620
cattatgaag atggtgctcg gtgtgtctgt agaggctatg gagatgaggg gacgagtaga
1680
agtcagccag gaagctaggc atgtgggaat gggggagggc ccttttctct aagagtttat
1740
ccttgccctc ctgaatttct tgcttcagga cgtaggagtc agcaaggggg ttaaggatgat
1800
gcttgagaaa gctgcagcgg tggggatctg atcgactcag tttctcatgc ttaaagatgt
1860
cattgatggt ctttctctct tccgagggtc tgcttctgaa actctggacg tgctgaatca
1920
ctgatggccg gctgaccgcc atatggtcag tgctttggcc atggtgggtc tgggacaaac
1980
tggaacacaa gtcaccccta gcaatcagtt tctttttgct gatcaaaggg ggtggggagc
2040
cataagggtg gctgctggag aggctggccc cactcacttg ggacaaaagc ttttcttgg
2100
ccagtgggga catcatgcct gggttgcccc tagagtagag caggggcgtg taattaagtc
2160
catgg
2165

<210> 402

<211> 87

<212> PRT

<213> Homo sapiens

<400> 402

```

Glu Tyr Pro Ala Gly Ser Leu Glu Leu Arg Pro Glu Leu His Arg Leu
 1             5             10             15
Pro Glu Tyr Arg Pro Gly Lys Ile Gly Glu Glu Arg Gly Ser Leu Trp
          20             25             30
Pro Phe Asp Pro Pro Pro Glu Cys Pro Pro Cys Ala Ala Leu Leu Pro
          35             40             45
Ser Ser Pro Ala Gln Arg Pro Ser Pro Ser Gln Arg Pro Pro Trp Met
          50             55             60
Gly Leu Arg Glu Thr Leu Pro Gly Pro Phe Ser Leu Gln Ser Gln Gly
65             70             75             80
Pro Asn Pro Pro Gly Cys Ala
          85

```

<210> 403

<211> 369

<212> DNA

<213> Homo sapiens

<400> 403

```

cccatgggtg tgtcccagga cggcgctcatg aagcgtcagg taaatgacaa ggaaacggtc
60
gcgcacttgt tcgaatacac gacgcaagtg tctgtcgact cgacgccgca actcgctccag
120
ccttcgcccc cgtcgcaaga caacctcggtg cctgtccaga tgatcttttg cttcaagcag
180
cgcaacgcga aaaagatcaa tagccaccgc tgggtatttc atgcactggg ccgcattgcta
240
cagcccgaca tggtcgtctt ggtggacgtc ggcacgaagc ccggccacct cgccctatac
300
catctatggc aggcattcta tcaccgacct accttgggcg gtgcttgcg cgaaattcat
360
gctatgatc
369

```

<210> 404

<211> 123

<212> PRT

<213> Homo sapiens

<400> 404

```

Pro Met Gly Val Ser Gln Asp Gly Val Met Lys Arg Gln Val Asn Asp
 1             5             10             15
Lys Glu Thr Val Ala His Leu Phe Glu Tyr Thr Thr Gln Val Ser Val
          20             25             30
Asp Ser Thr Pro Gln Leu Val Gln Pro Ser Pro Thr Ser His Asp Asn
          35             40             45
Leu Val Pro Val Gln Met Ile Phe Cys Phe Lys Gln Arg Asn Ala Lys
          50             55             60
Lys Ile Asn Ser His Arg Trp Val Phe His Ala Leu Gly Arg Met Leu
65             70             75             80
Gln Pro Asp Met Val Val Leu Val Asp Val Gly Thr Lys Pro Gly His

```

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| | | | | 85 | | | | | 90 | | | | | 95 | | | | | |
| Leu | Ala | Leu | Tyr | His | Leu | Trp | Gln | Ala | Phe | Tyr | His | Arg | Pro | Thr | Leu | | | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | | | |
| Gly | Gly | Ala | Cys | Gly | Glu | Ile | His | Ala | Met | Ile | | | | | | | | | |
| | | | 115 | | | | | 120 | | | | | | | | | | | |

<210> 405

<211> 840

<212> DNA

<213> Homo sapiens

<400> 405

```

gaattcccg gcaccagctc gaagctggag cactttgtgt ctatcctgct gaagtgcctc
60
gactcgccct ggaccacgag ggccctgtcg gagacagtgg tggaggagag cgacccaag
120
ccggccttca gcaagatgaa tgggtccatg gacaaaaagt catcgaccgt cagtgaggac
180
gtggaggcca ccgtgcccac gctgcagcgg accaagtcac ggatcgagca gggatatcgtg
240
gaccgctcag agacgggcgt gctggacaag aaggaggggg agcaagccaa ggcgctgttt
300
gagaaggtga agaagttccg gacctatgtg gaggaggggg acattgtgta ccgcctctac
360
atgcggcaga ccatcatcaa ggtgatcaag ttcacacctca tcacttgcta caccgtctac
420
tacgtgcaca acatcaagtt cgacgtggac tgcaccgtgg acattgagag cctgacgggc
480
taccgcacct accgctgtgc ccacccctg gccacactct tcaagatcct ggcgtccttc
540
tacatcagcc tagtcatctt ctacggcctc atctgcatgt atacactgtg gtggatgcta
600
cggcgctccc tcaagaagta ctcgtttgag tcgatccgtg aggagagcag ctacagcgac
660
atccccgacg tcaagaacga cttegccttc atgctgcacc tcattgacca atacgacccg
720
ctctactcca agcgcttcgc cgtcttctctg tcggaggtga gtgagaacaa gctgcggcag
780
ctgaacctca acaacgagtg gacgctggac aagctccggt acggagagaa gacaacgcgt
840

```

<210> 406

<211> 91

<212> PRT

<213> Homo sapiens

<400> 406

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| Leu | Ile | Cys | Met | Tyr | Thr | Leu | Trp | Trp | Met | Leu | Arg | Arg | Ser | Leu | Lys | | | | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | | | | |
| Lys | Tyr | Ser | Phe | Glu | Ser | Ile | Arg | Glu | Glu | Ser | Ser | Tyr | Ser | Asp | Ile | | | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | | | |
| Pro | Asp | Val | Lys | Asn | Asp | Phe | Ala | Phe | Met | Leu | His | Leu | Ile | Asp | Gln | | | | |
| | | | 35 | | | | 40 | | | | | 45 | | | | | | | |
| Tyr | Asp | Pro | Leu | Tyr | Ser | Lys | Arg | Phe | Ala | Val | Phe | Leu | Ser | Glu | Val | | | | |

```

      50              55              60
Ser Glu Asn Lys Leu Arg Gln Leu Asn Leu Asn Asn Glu Trp Thr Leu
65              70              75              80
Asp Lys Leu Arg Tyr Gly Glu Lys Thr Thr Arg
      85              90

```

<210> 407

<211> 535

<212> DNA

<213> Homo sapiens

<400> 407

```

gectattgta ccagctctcc agggctgggg acttgctaga gcagggttcc cagtgtcccc
60
aggctctact ttgctctgcc tggctctcagg gtgtagggga tggagagctg gacttccagc
120
ctgcttcttg gctgtctagg ggccaggggc tcgggacaca gagctcctgg aggccgagca
180
caagccttgg gcagaggtga ggcagagctc tgactgtttc attcgactac gttgccaagg
240
agatgctcgc tcggagtggg tgctctggct ctgggattcc aaaccaagct gccttctctg
300
atgtggcctt agtgcctctg gcgatgtac cttggctctg cctggaccct ctctctcttc
360
caggcctctg tcccaccagg atgatgccta tccagagctc attgtcctct cccacttctc
420
ccccagctt cccattccgt gtctctctgg agggcccatc atcatcctgg tggaggtggt
480
gcactgagga ccacagcagc cctcgcattc ccacgggcaa aggggtatgt gtagg
535

```

<210> 408

<211> 97

<212> PRT

<213> Homo sapiens

<400> 408

```

Met Leu Ala Arg Ser Gly Cys Ser Gly Ser Gly Ile Pro Asn Gln Ala
 1              5              10              15
Ala Phe Ser Asp Val Ala Leu Val Leu Trp Ala Asp Val Pro Trp Leu
      20              25              30
Cys Leu Asp Pro Leu Ser Leu Pro Gly Leu Cys Pro Thr Arg Met Met
      35              40              45
Pro Ile Gln Ser Ser Leu Ser Ser Pro Thr Ser Ser Pro Ser Phe Pro
      50              55              60
Phe Arg Val Ser Leu Glu Gly Pro Ser Ser Ser Trp Trp Arg Cys Cys
65              70              75              80
Thr Glu Asp His Ser Ser Pro Arg Ile Pro Thr Gly Lys Gly Val Cys
      85              90              95
Val

```

<210> 409

<211> 375

<212> DNA

<213> Homo sapiens

<400> 409

```

ngtgtcatgg gtgtctatac cagcgatgag gccaaactg ccaagacttt tggatttggg
60
ggacttccga ttacgactaa tatttctctt gccacaact tcaatatgga tgaaatttct
120
gatattgtct tccgtgtcaa tgataccagt ttgacaccaa ctgtgggacc agaattagct
180
agaaaattga ccgaaattgc tggctctcag caaggggagt atcaggtgtc agatgcgact
240
gcagccttcc aagaagtgca acaattgttc ggctttataa ctacgattat tagtgccatt
300
gcaggaattt ccctttttgt tggagggact ggtgttatga acatcatgct ggtttcgggtg
360
acggagcgta cgcgt
375

```

<210> 410

<211> 125

<212> PRT

<213> Homo sapiens

<400> 410

```

Xaa Val Met Gly Val Tyr Thr Ser Asp Glu Ala Lys Thr Ala Lys Thr
 1           5           10           15
Phe Gly Ile Gly Gly Leu Pro Ile Thr Thr Asn Ile Ser Leu Ala Asn
      20           25           30
Asn Phe Asn Met Asp Glu Ile Ser Asp Ile Val Phe Arg Val Asn Asp
      35           40           45
Thr Ser Leu Thr Pro Thr Val Gly Pro Glu Leu Ala Arg Lys Leu Thr
      50           55           60
Glu Ile Ala Gly Leu Gln Gln Gly Glu Tyr Gln Val Ser Asp Ala Thr
65           70           75           80
Ala Ala Phe Gln Glu Val Gln Gln Leu Phe Gly Phe Ile Thr Thr Ile
      85           90           95
Ile Ser Ala Ile Ala Gly Ile Ser Leu Phe Val Gly Gly Thr Gly Val
      100          105          110
Met Asn Ile Met Leu Val Ser Val Thr Glu Arg Thr Arg
      115          120          125

```

<210> 411

<211> 409

<212> DNA

<213> Homo sapiens

<400> 411

```

ccacatactt caccctcttc accccctcca cctactccac cacctggcag tcgccatcga
60
ggatgggacg caactccacg tccacatgct ccggaccacg cggcgtgtgg tggatgtgca
120
gcacgcggtc ggggccctt gagctcgaag gcgcggcgca tcgggcagtg ctgcgcggcc
180

```

tggtcgcagg gcacgtcgta ctggtgctgag acgcggaagc acttgtggcc gatgtaggcg
 240
 cgatcggctg tcccgaactg gcgctgatag gccgtgtaca caacacaaac tgttgctactc.
 300
 ccggtccacc acgatcatgg gctgggactc gtgttccagg tggggggcca gggcttgggc.
 360
 ctgctggtgag cgcgtggggg ggatggggca tagcgtcggg gaggagggtg
 409

<210> 412
 <211> 119
 <212> PRT
 <213> Homo sapiens

<400> 412
 Met Pro His Pro Pro His Ala Leu Thr Ala Gly Pro Ser Pro Gly Pro
 1 5 10 15
 Pro Pro Gly Thr Arg Val Pro Ala His Asp Arg Gly Gly Pro Gly Val
 20 25 30
 Gln Gln Phe Val Leu Cys Thr Arg Pro Ile Ser Ala Ser Ser Gly Gln
 35 40 45
 Pro Ile Ala Pro Thr Ser Ala Thr Ser Ala Ser Ala Ser Arg Thr Ser
 50 55 60
 Thr Thr Cys Pro Ala Thr Arg Pro Ala Ser Thr Ala Arg Cys Ala Ala
 65 70 75 80
 Pro Ser Ser Ser Arg Gly Pro Asp Arg Val Leu His Ile His His Thr
 85 90 95
 Pro Arg Gly Pro Glu His Val Asp Val Glu Leu Arg Pro Ile Leu Asp
 100 105 110
 Gly Asp Cys Gln Val Val Glu
 115

<210> 413
 <211> 357
 <212> DNA
 <213> Homo sapiens

<400> 413
 ccgggcatcc caccaccggg tgtcatgaac caagtagtgg cccctatggt agggactcca
 60
 gcaccgggtg gaagtccata tggacaacag gtgggagttt tggggcctcc agggcagcag
 120
 gcaccacctc catatcccgg cccacatcca gctggacccc ctgtcatata gcagccaaca
 180
 acacccatgt ttgtagctcc cccccaaaag acccagcggc ttcttcactc agaggcctac
 240
 ctgaaataca ttgaaggact cagtgcggag tccaacagca ttagcaagtg ggatcagaca
 300
 ctggcagctc ggagacgcga cgtccatttg tcgaaagaac aggagagccg cctaccc
 357

<210> 414
 <211> 119
 <212> PRT

<213> Homo sapiens

<400> 414

```

Pro Gly Ile Pro Pro Pro Gly Val Met Asn Gln Val Val Ala Pro Met
 1             5             10             15
Val Gly Thr Pro Ala Pro Gly Gly Ser Pro Tyr Gly Gln Gln Val Gly
          20             25             30
Val Leu Gly Pro Pro Gly Gln Gln Ala Pro Pro Pro Tyr Pro Gly Pro
          35             40             45
His Pro Ala Gly Pro Pro Val Ile Gln Gln Pro Thr Thr Pro Met Phe
          50             55             60
Val Ala Pro Pro Pro Lys Thr Gln Arg Leu Leu His Ser Glu Ala Tyr
65             70             75             80
Leu Lys Tyr Ile Glu Gly Leu Ser Ala Glu Ser Asn Ser Ile Ser Lys
          85             90             95
Trp Asp Gln Thr Leu Ala Ala Arg Arg Arg Asp Val His Leu Ser Lys
          100             105             110
Glu Gln Glu Ser Arg Leu Pro
          115

```

<210> 415

<211> 332

<212> DNA

<213> Homo sapiens

<400> 415

```

tctagagcca acttggttat cgtaatgaat agagagacta catctatatc aattattacg
60
ctctatagta atcatgaagc ttgggttata tgtatgacaa aaattgcaga aaaatcgaaa
120
caagaatatg gcgacttact aaaagaaaaa gaccatttac aagatatgga acagcttgag
180
atgactatcg tctcgatcca tacgccgtat ccgtccattg tcagaattca aggaaaaatc
240
aacacattac agccagagct ttggcaagct cccaatttag caattcggtt aattgtgagc
300
aatccgccag agggacaacc catctcacgc gt
332

```

<210> 416

<211> 102

<212> PRT

<213> Homo sapiens

<400> 416

```

Met Asn Arg Glu Thr Thr Ser Ile Ser Ile Ile Thr Leu Tyr Ser Asn
 1             5             10             15
His Glu Ala Trp Val Ile Cys Met Thr Lys Ile Ala Glu Lys Ser Lys
          20             25             30
Gln Glu Tyr Gly Asp Leu Leu Lys Glu Lys Asp His Leu Gln Asp Met
          35             40             45
Glu Gln Leu Glu Met Thr Ile Val Ser Ile His Thr Pro Tyr Pro Ser
          50             55             60
Ile Val Arg Ile Gln Gly Lys Ile Asn Thr Leu Gln Pro Glu Leu Trp

```

```

65          70          75          80
Gln Ala Pro Asn Leu Ala Ile Arg Leu Ile Val Ser Asn Pro Pro Glu
          85          90          95
Gly Gln Pro Ile Ser Arg
          100

```

<210> 417
 <211> 483
 <212> DNA
 <213> Homo sapiens

```

<400> 417
gaattcctcg ccgtctctga ggtgggagag gacaccttg tgcgctccac cgagggagac
60
tacgcggcca acgtcgaggg cgtgggtgacc ccagcaccgg cggagaaaga tattgagggc
120
cagccagaag cacaggaaca tgacaccccg ggtacagaga ccattgagaa gctggtcgaa
180
tgggccagg ggcaggcat tactgtaaac cccgcgcttg tttgttatta taccctcaag
240
tgcatgatga tcaagctcca ccaccggcc gcggagagcg aagagcgcg gtccgagttg
300
gcggcggttc tcatccctgg cgatcgagag ctggatgaaa agcgccttga ggccgcactc
360
gagccggttg agtttgagtt ggcaggggat aaggactttg cagacaatga cttcctagtc
420
aagggtatg ttggcccgcg cgctttgaac gccaatggca tcaaggtctt ggccgatcca
480
cgc
483

```

<210> 418
 <211> 161
 <212> PRT
 <213> Homo sapiens

```

<400> 418
Glu Phe Leu Ala Val Ser Glu Val Gly Glu Asp Thr Phe Val Arg Ser
1          5          10          15
Thr Glu Gly Asp Tyr Ala Ala Asn Val Glu Ala Val Val Thr Pro Ala
20          25          30
Pro Ala Glu Lys Asp Ile Glu Gly Gln Pro Glu Ala Gln Glu His Asp
35          40          45
Thr Pro Gly Thr Glu Thr Ile Glu Lys Leu Val Glu Trp Ala Gln Gly
50          55          60
Ala Gly Ile Thr Val Asn Pro Arg Val Val Cys Tyr Tyr Thr Leu Lys
65          70          75          80
Cys Met Met Ile Lys Leu His His Pro Ala Ala Glu Ser Glu Glu Arg
85          90          95
Glu Ser Glu Leu Ala Ala Val Leu Ile Pro Gly Asp Arg Glu Leu Asp
100          105          110
Glu Lys Arg Leu Glu Ala Ala Leu Glu Pro Val Glu Phe Glu Leu Ala
115          120          125
Gly Asp Lys Asp Phe Ala Asp Asn Asp Phe Leu Val Lys Gly Tyr Val

```

| | | |
|---|-----|-----|
| 130 | 135 | 140 |
| Gly Pro Arg Ala Leu Asn Ala Asn Gly Ile Lys Val Leu Ala Asp Pro | | |
| 145 | 150 | 155 |
| Arg | | 160 |

<210> 419

<211> 797

<212> DNA

<213> Homo sapiens

<400> 419

```

atttcacccc aggaaaacca gtaaggacca atgattaagc ccaagggttg gtaccgagtt
60
cggatccata agtaccggcc gccaggggtg ctggaatttg ggctcccccc ggtgaaaata
120
tccatgcagc cgcgttgtct taggtagaaa agggagactg ggggtgggtg ggctgagctc
180
aagcccctgc ctacatactt tagtagtaac gactcccgat ctgcatccaa cacatttacc
240
gaacttctag taagcgcccc ccgctgcaag cgaaagcaact ccctgccaa gaaacagatc
300
ttttccactt aaaattccca aactcagacc ttccactttt tactgaacaa aaagcgtgta
360
catgatctga agggttgaca tgacattttc taaattgggc gaatcaggaa gaggttgatg
420
aaaatccttg acgttttctg gggataggac atttgtgtgt gataacgttc ttaagtcgaa
480
tttcagtgtg gcagtgcacg cagattcttc attggtgtta gtgtatttcc atacggtatg
540
tattagtaca agaaatagtg ttccctttga cactcgaacc caaggagtgg tccgaggctt
600
tttgaggcaa cgtaggatca atgtctctga agcagatttg gtgaaggatg caggtctcat
660
aatttacaga gcaatcacag ccttctttga aacggagaaa ttagattcta tgaaattttg
720
tcagtgcaga tagatatgat gtggagaaac ggggaaaatt gagtacaaaa agatgaggct
780
tgaatgatgg ctggcca
797

```

<210> 420

<211> 106

<212> PRT

<213> Homo sapiens

<400> 420

| | | |
|---|----|----|
| Met Arg Pro Ala Ser Phe Thr Lys Ser Ala Ser Glu Thr Leu Ile Leu | | |
| 1 | 5 | 10 |
| Arg Cys Leu Lys Lys Pro Arg Thr Thr Pro Trp Val Arg Val Ser Lys | | |
| 20 | 25 | 30 |
| Gly Thr Leu Phe Leu Val Leu Ile His Thr Val Trp Lys Tyr Thr Asn | | |
| 35 | 40 | 45 |
| Thr Asn Glu Glu Ser Ala Cys Thr Ala Thr Leu Lys Phe Asp Leu Arg | | |

```

      50              55              60
Thr Leu Ser His Thr Asn Val Leu Ser Pro Glu Asn Val Lys Asp Phe
65              70              75              80
His Gln Pro Leu Pro Asp Ser Pro Asn Leu Glu Asn Val Met Ser Thr
      85              90              95
Leu Gln Ile Met Tyr Thr Leu Phe Val Gln
      100              105

```

<210> 421
 <211> 406
 <212> DNA
 <213> Homo sapiens

```

<400> 421
ggatccacca tgatggagcc caccaccca tcctcagtc accctgctgca gcttctccat
60
aaccacaacac aggtcaatct tgtctcccta aacacacccat gtgctctcat gctgccatgg
120
tttgcttggg gccctctcta cctcctctgc tttctggaga acccttgac tcctcccaag
180
ccttcaagtt ggaaagtga cagtcagcat atgtctctag ctgagccctt actgctgga
240
ttcatgaaga ttggttcact gtcagccct gaccagaacg tgtgttttag gaaagcagga
300
accaagtctt accaatgtct gtagtcccag cctccaccct ggcatagct aggtgctcat
360
tgaatgtggg agggaaagag gagacacatg gaagggaatg tcattc
406

```

<210> 422
 <211> 104
 <212> PRT
 <213> Homo sapiens

```

<400> 422
Met Met Glu Pro Thr His Pro Ser Ser Val His Leu Leu Gln Leu Leu
1              5              10              15
His Asn Pro Thr Gln Val Asn Leu Val Ser Leu Asn Thr Pro Cys Ala
      20              25              30
Leu Met Leu Pro Trp Phe Ala Trp Gly Pro Leu Tyr Leu Leu Cys Phe
      35              40              45
Leu Glu Asn Pro Cys Thr Pro Pro Lys Pro Ser Ser Trp Lys Val Asn
      50              55              60
Ser Gln His Met Ser Leu Ala Gln Pro Leu Leu Arg Gly Phe Met Lys
65              70              75              80
Ile Gly Ser Leu Ser Ala Pro Asp Gln Asn Val Cys Phe Arg Lys Ala
      85              90              95
Gly Thr Lys Ser Tyr Gln Cys Leu
      100

```

<210> 423
 <211> 628
 <212> DNA
 <213> Homo sapiens

<400> 423
 ngccacccta cgcctcgctt gcaatggcaa cttcagatcc cgggtggcac cgtagtctta
 60
 gagccaccgg ttctgagcgg ggaggacgac ggggttgggg cggaggaagg agagggagaa
 120
 ggagatgggg atttgctgac gcagacccaa gcccaaacgc cgactccagc acccgcttgg
 180
 ccggcgcccc cagccacacc gcgcttcttg gccctcgcaa atggctccct gttggtgccc
 240
 ctcttgagtg ccaaggaggc gggcgtctac acttgccgtg cacacaatga gctgggcgcc
 300
 aactctacgt caatacgcgt ggcggtggca gcaaccgggc ccccaaaaca cgcgcctggc
 360
 gccgggggag aaccgcgacg acaggccccg acctctgagc gcaagtccac agccaagggc
 420
 cggggcaaca gcgtcttgcc ttccaaacct gagggcaaaa tcaaaggcca aggcttgccc
 480
 aaggctcagca ttctcgggga gaccgagacg gagccggagg aggacacaag tgaggagag
 540
 gaggccgaag accagatcct cgcggaccgc gcggaggagc agcgtctgtg caacggggac
 600
 ccctctcggt acgtttctaa ccacgcgt
 628

<210> 424
 <211> 209
 <212> PRT
 <213> Homo sapiens

<400> 424
 Xaa His Pro Thr Pro Arg Leu Gln Trp Gln Leu Gln Ile Pro Gly Gly
 1 5 10 15
 Thr Val Val Leu Glu Pro Pro Val Leu Ser Gly Glu Asp Asp Gly Val
 20 25 30
 Gly Ala Glu Glu Gly Glu Gly Glu Gly Asp Gly Asp Leu Leu Thr Gln
 35 40 45
 Thr Gln Ala Gln Thr Pro Thr Pro Ala Pro Ala Trp Pro Ala Pro Pro
 50 55 60
 Ala Thr Pro Arg Phe Leu Ala Leu Ala Asn Gly Ser Leu Leu Val Pro
 65 70 75 80
 Leu Leu Ser Ala Lys Glu Ala Gly Val Tyr Thr Cys Arg Ala His Asn
 85 90 95
 Glu Leu Gly Ala Asn Ser Thr Ser Ile Arg Val Ala Val Ala Ala Thr
 100 105 110
 Gly Pro Pro Lys His Ala Pro Gly Ala Gly Gly Glu Pro Asp Gly Gln
 115 120 125
 Ala Pro Thr Ser Glu Arg Lys Ser Thr Ala Lys Gly Arg Gly Asn Ser
 130 135 140
 Val Leu Pro Ser Lys Pro Glu Gly Lys Ile Lys Gly Gln Gly Leu Ala
 145 150 155 160
 Lys Val Ser Ile Leu Gly Glu Thr Glu Thr Glu Pro Glu Glu Asp Thr
 165 170 175
 Ser Glu Gly Glu Glu Ala Glu Asp Gln Ile Leu Ala Asp Pro Ala Glu

180 185 190
 Glu Gln Arg Cys Gly Asn Gly Asp Pro Ser Arg Tyr Val Ser Asn His
 195 200 205

Ala

<210> 425

<211> 471

<212> DNA

<213> Homo sapiens

<400> 425

ccggccgctcg aagactttga ggacgatgta gctcgcagcg cagcggttacg agccctggag
 60
 tacgtggatt tgaccccagg cactnaagtg cgcgtcatcg ccattgacac cgtgttctta
 120
 ggatcgtgca cgaatggccg tgaggactta cggctggctg ctgagggttcc caaaggacga
 180
 catatcgtag cgggcacccg gatgctcgtc gccctggat ctgctcgtgt ccgtctgcag
 240
 gctatggagg aaggcctcga cgagatcggg tcccggtttg ctgacatctt tcgcaataac
 300
 tctgcgaaca atggcttggt actggctcag gttgaccccg aggtcgtcga agagttgtgg
 360
 gactttgccg agcagcatcc tggtagcag ctcaccgtct ccctcgagaa tcggacgac
 420
 aaccttcggg gtcgcacgac ctaccgttc catattgatg acgtcacgag t
 471

<210> 426

<211> 157

<212> PRT

<213> Homo sapiens

<400> 426

Pro Ala Val Glu Asp Phe Glu Asp Asp Val Ala Arg Ser Ala Ala Leu
 1 5 10 15
 Arg Ala Leu Glu Tyr Val Asp Leu Thr Pro Gly Thr Xaa Val Arg Val
 20 25 30
 Ile Ala Ile Asp Thr Val Phe Leu Gly Ser Cys Thr Asn Gly Arg Glu
 35 40 45
 Asp Leu Arg Leu Ala Ala Glu Val Pro Lys Gly Arg His Ile Ala Ala
 50 55 60
 Gly Thr Arg Met Leu Val Ala Pro Gly Ser Ala Arg Val Arg Leu Gln
 65 70 75 80
 Ala Met Glu Glu Gly Leu Asp Glu Ile Gly Ser Arg Phe Ala Asp Ile
 85 90 95
 Phe Arg Asn Asn Ser Ala Asn Asn Gly Leu Leu Leu Ala Gln Val Asp
 100 105 110
 Pro Glu Val Val Glu Glu Leu Trp Asp Phe Ala Glu Gln His Pro Gly
 115 120 125
 Glu Gln Leu Thr Val Ser Leu Glu Asn Arg Thr Ile Asn Leu Pro Gly
 130 135 140
 Arg Thr Thr Tyr Pro Phe His Ile Asp Asp Val Thr Arg

145

150

155

<210> 427

<211> 546

<212> DNA

<213> Homo sapiens

<400> 427

ctagcggtag tagaaggat gcagtttgat cgcggtact tgtctccgta tttcatcaac
60

aatcaagaaa caatgaatgc agagctagaa aaccattta ttcttcttgt tgataagaaa
120

atttctaata tccgtgactt gctaccaatt ttggaagggt ttgctaaagc atcgcgccca
180

ttgttgatca ttgcggaaga cggtgaaggc gaagcgttgg caaccttggg tgtaaacact
240

atgcgcggca tcgtaaaagt agcggcagcg aaagcgccag gttttggtga tcgccgtaaa
300

gcaatgcttc aagacattgc tgtgctaacg ggttcaactg ttatttcaga agaaattggc
360

attaagcttg aagaagcgac aattgaacag ttgggtacag cgaagcgctg tacattgaca
420

aaagaaagta caacgattgt tgatggtgag ggtggtgcag ctaatattac tggtcgtggt
480

gagcaaattc gtgcagaaat tgctaactct tcttctggct acgataaaga gaaattgcaa
540

gaacgc

546

<210> 428

<211> 182

<212> PRT

<213> Homo sapiens

<400> 428

Leu Ala Val Val Glu Gly Met Gln Phe Asp Arg Gly Tyr Leu Ser Pro
1 5 10 15

Tyr Phe Ile Asn Asn Gln Glu Thr Met Asn Ala Glu Leu Glu Asn Pro
20 25 30

Phe Ile Leu Leu Val Asp Lys Lys Ile Ser Asn Ile Arg Asp Leu Leu
35 40 45

Pro Ile Leu Glu Gly Val Ala Lys Ala Ser Arg Pro Leu Leu Ile Ile
50 55 60

Ala Glu Asp Val Glu Gly Glu Ala Leu Ala Thr Leu Val Val Asn Thr
65 70 75 80

Met Arg Gly Ile Val Lys Val Ala Ala Ala Lys Ala Pro Gly Phe Gly
85 90 95

Asp Arg Arg Lys Ala Met Leu Gln Asp Ile Ala Val Leu Thr Gly Ser
100 105 110

Thr Val Ile Ser Glu Glu Ile Gly Ile Lys Leu Glu Glu Ala Thr Ile
115 120 125

Glu Gln Leu Gly Thr Ala Lys Arg Val Thr Leu Thr Lys Glu Ser Thr
130 135 140

Thr Ile Val Asp Gly Ala Gly Val Ala Ala Asn Ile Thr Gly Arg Val

145 150 155 160
 Glu Gln Ile Arg Ala Glu Ile Ala Asn Ser Ser Ser Gly Tyr Asp Lys
 165 170 175
 Glu Lys Leu Gln Glu Arg
 180

<210> 429

<211> 425

<212> DNA

<213> Homo sapiens

<400> 429

gctagcagcc cttacaggag acgggctaata aataatgcag cagtggctcc gacaacttgc
 60
 ccgttgacgc cggtcacgga tccatttgc tttagtagac aggcgctcca aagtacacca
 120
 ctgggcagtt cgtccaaaag cagtccacct gtcttgcaag gccagcccc cgcaggggtt
 180
 tctcaacacc ccggtttgct tgtgccttac acacaatgca aaaaatagct ctcagggacc
 240
 ctgtgagccc ctgcctggac ctctgacaca gccagagca catgccagtc cgttttctgg
 300
 tgcattgaca cttcagcac ctctggggcc tgagatgaac aggagtgcag aggtcggtcc
 360
 cagttcagag cctgaagttc agactctgcc atatcttctt cactacattc caggagtgga
 420
 tctctg
 425

<210> 430

<211> 130

<212> PRT

<213> Homo sapiens

<400> 430

Met Gln Gln Trp Leu Arg Gln Leu Ala Arg Cys Ser Arg Ser Arg Ile
 1 5 10 15
 His Leu Leu Leu Val Asp Arg Arg Ser Lys Val His His Trp Ala Val
 20 25 30
 Arg Pro Lys Ala Val His Leu Ser Cys Lys Ala Gln Pro Pro Gln Gly
 35 40 45
 Phe Leu Asn Thr Pro Val Cys Leu Cys Leu Thr His Asn Ala Lys Asn
 50 55 60
 Ser Ser Gln Gly Pro Cys Glu Pro Leu Pro Gly Pro Leu Thr Gln Pro
 65 70 75 80
 Arg Ala His Ala Ser Pro Phe Ser Gly Ala Leu Thr Pro Ser Ala Pro
 85 90 95
 Pro Gly Pro Glu Met Asn Arg Ser Ala Glu Val Gly Pro Ser Ser Glu
 100 105 110
 Pro Glu Val Gln Thr Leu Pro Tyr Leu Pro His Tyr Ile Pro Gly Val
 115 120 125
 Asp Pro
 130

<210> 431
 <211> 192
 <212> DNA
 <213> Homo sapiens

<400> 431
 ctagccatcc accagcgtag acacacggga gagaggccct acactggcct cgggtgcaac
 60
 cgccgcttcc gccagcgcac ggccctcgtc atccaccagc gcatccacac gggcgagaag
 120
 cctnaccgt gcccgactg cgagcggcgc ttctcctcct cctctcgctt ggtcagtcac
 180
 cggcgtgtgc ac
 192

<210> 432
 <211> 64
 <212> PRT
 <213> Homo sapiens

<400> 432
 Leu Ala Ile His Gln Arg Thr His Thr Gly Glu Arg Pro Tyr Thr Gly
 1 5 10 15
 Leu Gly Cys Asn Arg Arg Phe Arg Gln Arg Thr Ala Leu Val Ile His
 20 25 30
 Gln Arg Ile His Thr Gly Glu Lys Pro Xaa Pro Cys Pro Asp Cys Glu
 35 40 45
 Arg Arg Phe Ser Ser Ser Ser Arg Leu Val Ser His Arg Arg Val His
 50 55 60

<210> 433
 <211> 635
 <212> DNA
 <213> Homo sapiens

<400> 433
 nngccggcgg ctgcgttggg atacgacgtc gctgcgattg ggcgtgagta tctttggtac
 60
 ctcatggagg agcgtggcgc gtatgcggag gccgccgcgc tcatgcccgt gctgctccgg
 120
 accgaccgag gcgcgtggga cacgtttgtg tgctgctacc tcgagcggca ccaaagggat
 180
 gcgatactcc cgcacattcc gacgcaggac cccagctga gtgagatggg gtacgatctc
 240
 gtgctggtgc atctgctgca gcacgatccc acgcagctgt tggcgacgct ccgcgcatgg
 300
 ccgagtcaca tctactcgaa gcaggcgggtg gctgcggcga tcggcgatca cgcacgaacc
 360
 agccgcacgc tgctcgagt cctcgcacag ctgtacatgg ccgcacatca gcccggaag
 420
 gctctgacat actacatgcg cctgcgtgat ccatgcgtgt ttgatctcat tcgcgagtac
 480
 gatctgctga tcgatgtgca gcaccacatc ggcacgctcg tcgagctcga tcaggaatgc
 540

gccggctcca ctgagccgcg ctccagcgcg cttatgccgc tgctcgtgcc atataccac
 600
 tcgattccca tccagcgcgc catggcgcag ctgca
 635

<210> 434
 <211> 211
 <212> PRT
 <213> Homo sapiens

<400> 434
 Xaa Pro Ala Ala Leu Gly Tyr Asp Val Ala Ala Ile Gly Arg Glu
 1 5 10 15
 Tyr Leu Trp Tyr Leu Met Glu Glu Arg Gly Ala Tyr Ala Glu Ala Ala
 20 25 30
 Ala Leu Met Pro Leu Leu Leu Arg Thr Asp Arg Gly Ala Trp Asp Thr
 35 40 45
 Phe Val Cys Cys Tyr Leu Glu Arg His Gln Arg Asp Ala Ile Leu Pro
 50 55 60
 His Ile Pro Thr Gln Asp Pro Gln Leu Ser Glu Met Val Tyr Asp Leu
 65 70 75 80
 Val Leu Val His Leu Leu Gln His Asp Pro Thr Gln Leu Leu Ala Thr
 85 90 95
 Leu Arg Ala Trp Pro Ser His Ile Tyr Ser Lys Gln Ala Val Ala Ala
 100 105 110
 Ala Ile Gly Asp His Ala Arg Thr Ser Arg Thr Leu Leu Glu Cys Leu
 115 120 125
 Ala Gln Leu Tyr Met Ala Ala His Gln Pro Gly Lys Ala Leu Thr Tyr
 130 135 140
 Tyr Met Arg Leu Arg Asp Pro Cys Val Phe Asp Leu Ile Arg Glu Tyr
 145 150 155 160
 Asp Leu Leu Ile Asp Val Gln His His Ile Gly Thr Leu Val Glu Leu
 165 170 175
 Asp Gln Glu Cys Ala Gly Ser Thr Glu Pro Arg Ser Ser Ala Leu Met
 180 185 190
 Pro Leu Leu Val Pro Tyr Thr His Ser Ile Pro Ile Gln Arg Ala Met
 195 200 205
 Ala Gln Leu
 210

<210> 435
 <211> 493
 <212> DNA
 <213> Homo sapiens

<400> 435
 nncgtacgtt cgcgtatttt ccgcgcccg gaagctatcg ataataaagt tcaaccgctg
 60
 atccagcgtt agcaatggcg ggcacaggaa gggacttag gcatgcagaa agaaaagctt
 120
 tccgctctga tggatggtga atcggtcgac agcgagctgt tgagttctct gtcgcaagat
 180
 cgaacgcttc aacaaagctg gcagggtat cacctgatac gtgacacact gcgaggtgat
 240

gtcgggcaag tgatgcatct cgacatcgcc gatcgcgtag ccgctgcact tgagaaagaa
 300
 cccgcccggc tgggtgccttc cgccgttcag gaatctcagc cgcagcctca cacctggcag
 360
 aaaatgccgt tctgggacaa agtgcgtccc tgggcgagcc agattacgca aatcggtatg
 420
 gcggcctgcg tgtcgctggc ggtgatcgtc ggcgtgcagc agtacaacca gccttctgcg
 480
 ccatcgaacg cgt
 493

<210> 436

<211> 130

<212> PRT

<213> Homo sapiens

<400> 436

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Gln | Lys | Glu | Lys | Leu | Ser | Ala | Leu | Met | Asp | Gly | Glu | Ser | Phe | Asp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ser | Glu | Leu | Leu | Ser | Ser | Leu | Ser | Gln | Asp | Arg | Thr | Leu | Gln | Gln | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Trp | Gln | Gly | Tyr | His | Leu | Ile | Arg | Asp | Thr | Leu | Arg | Gly | Asp | Val | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gln | Val | Met | His | Leu | Asp | Ile | Ala | Asp | Arg | Val | Ala | Ala | Ala | Leu | Glu |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Lys | Glu | Pro | Ala | Arg | Leu | Val | Pro | Ser | Ala | Val | Gln | Glu | Ser | Gln | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Gln | Pro | His | Thr | Trp | Gln | Lys | Met | Pro | Phe | Trp | Asp | Lys | Val | Arg | Pro |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Trp | Ala | Ser | Gln | Ile | Thr | Gln | Ile | Gly | Met | Ala | Ala | Cys | Val | Ser | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Val | Ile | Val | Gly | Val | Gln | Gln | Tyr | Asn | Gln | Pro | Ser | Ala | Pro | Ser |
| | | 115 | | | | 120 | | | | | | 125 | | | |
| Asn | Ala | | | | | | | | | | | | | | |
| | 130 | | | | | | | | | | | | | | |

<210> 437

<211> 447

<212> DNA

<213> Homo sapiens

<400> 437

ntggtaaccg gtgtccctga tatggaccct gctgtggttag agcgtaaatt atttatttta
 60
 cgtaattatg taacacgcat ctgtttggag tctgttaatg gaattaagga caactttttac
 120
 attaatacat tctcatacaa aacaatcggt tataaagggtc agttaaccac tgaacaagtg
 180
 ccacaatatt tcttagattt acaaaatcca agtatggtaa cggcattagc gcttggttcac
 240
 tcacgtttct caacaaatac atttcctcgt tggcgtttag cacaaccatt ccgttacatc
 300
 gtcataatg gcgaaatcaa tacggttcgc ggtaatatca attggatgaa agcacgtgaa
 360

gcgttacttg aagctgaatt tttcactcgc tcagaattag atatgttaat gccaatctgt
420

acggatggta tgtctgactc ggcaagg

447

<210> 438

<211> 149

<212> PRT

<213> Homo sapiens

<400> 438

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Val | Thr | Gly | Val | Pro | Asp | Met | Asp | Pro | Ala | Val | Leu | Glu | Arg | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Phe | Ile | Leu | Arg | Asn | Tyr | Val | Thr | Arg | Ile | Cys | Leu | Glu | Ser | Val |
| | | | 20 | | | | | 25 | | | | 30 | | | |
| Asn | Gly | Ile | Lys | Asp | Asn | Phe | Tyr | Ile | Asn | Thr | Phe | Ser | Tyr | Lys | Thr |
| | | 35 | | | | | 40 | | | | 45 | | | | |
| Ile | Val | Tyr | Lys | Gly | Gln | Leu | Thr | Thr | Glu | Gln | Val | Pro | Gln | Tyr | Phe |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Asp | Leu | Gln | Asn | Pro | Ser | Met | Val | Thr | Ala | Leu | Ala | Leu | Val | His |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ser | Arg | Phe | Ser | Thr | Asn | Thr | Phe | Pro | Arg | Trp | Arg | Leu | Ala | Gln | Pro |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Phe | Arg | Tyr | Ile | Ala | His | Asn | Gly | Glu | Ile | Asn | Thr | Val | Arg | Gly | Asn |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ile | Asn | Trp | Met | Lys | Ala | Arg | Glu | Ala | Leu | Leu | Glu | Ala | Glu | Phe | Phe |
| | | 115 | | | | | 120 | | | | 125 | | | | |
| Thr | Arg | Ser | Glu | Leu | Asp | Met | Leu | Met | Pro | Ile | Cys | Thr | Asp | Gly | Met |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ser | Asp | Ser | Ala | Arg | | | | | | | | | | | |
| 145 | | | | | | | | | | | | | | | |

<210> 439

<211> 395

<212> DNA

<213> Homo sapiens

<400> 439

nacgcgtgaa gggagagtgg ggccgagccc caggaggctg tctgcagca gctgcaccag
60
cttcccaggg gccggtgga cctggccacg caaagcctga cggaggagac ctgcagggcc
120
ctgggcaagc tgctgccgag ggagacgctg tgcacggagc tggtcctgag tgactgcatg
180
ctcagcgagg aagggggccac actgctgctc cgaggcctgt gtgccaacac cgtgctgcgc
240
tttctggact taaagggcaa caaccttcgg gctgcagggg ccgaggctct gggaaaactc
300
ctccaacaga acaagtccat tcagagcctc acgctggagt ggaacagcct gggcacgtgg
360
gacgatgcct tcgccacctt ctgcgggggc ctggc
395

<210> 440

<211> 128

<212> PRT

<213> Homo sapiens

<400> 440

```

Arg Glu Ser Gly Ala Glu Pro Gln Glu Ala Val Leu Gln Gln Leu His
 1           5           10          15
Gln Leu Pro Arg Gly Arg Leu Asp Leu Ala Thr Gln Ser Leu Thr Val
      20           25           30
Glu Thr Cys Arg Ala Leu Gly Lys Leu Leu Pro Arg Glu Thr Leu Cys
      35           40           45
Thr Glu Leu Val Leu Ser Asp Cys Met Leu Ser Glu Glu Gly Ala Thr
      50           55           60
Leu Leu Leu Arg Gly Leu Cys Ala Asn Thr Val Leu Arg Phe Leu Asp
65           70           75           80
Leu Lys Gly Asn Asn Leu Arg Ala Ala Gly Ala Glu Ala Leu Gly Lys
      85           90           95
Leu Leu Gln Gln Asn Lys Ser Ile Gln Ser Leu Thr Leu Glu Trp Asn
      100          105          110
Ser Leu Gly Thr Trp Asp Asp Ala Phe Ala Thr Phe Cys Gly Gly Leu
      115          120          125

```

<210> 441

<211> 364

<212> DNA

<213> Homo sapiens

<400> 441

```

gcccagtact acgtgaacat gttcgatgcc gagcagggct tcttcgacag gcgcagcccg
60
ggcggcgagt tccaagccgg cttggatccg gaatcctggg gcggtctggt cactgagacc
120
gacggttgga acttcgcctt ccacgctcca caggacggcc gggggctggc cgcgctctac
180
ggcgggtccga aaggcttgga gaacaagctc gatgcctttt tcgcgacgcc ggaaaacgcg
240
gacaagccgg cgtacggcgg aatccacgaa atggtcgagg ccagagcggg ccggatgggc
300
caattgggca tgtccaacga gccctgcac catattccct acatctacaa ctatgccggc
360
gcgc
364

```

<210> 442

<211> 121

<212> PRT

<213> Homo sapiens

<400> 442

```

Ala Gln Tyr Tyr Val Asn Met Phe Asp Ala Glu Gln Gly Phe Phe Asp
 1           5           10          15
Arg Arg Ser Pro Gly Gly Glu Phe Gln Ala Gly Leu Asp Pro Glu Ser
      20           25           30
Trp Gly Gly Leu Phe Thr Glu Thr Asp Gly Trp Asn Phe Ala Phe His

```

```

      35              40              45
Ala Pro Gln Asp Gly Arg Gly Leu Ala Ala Leu Tyr Gly Gly Pro Lys
      50              55              60
Gly Leu Glu Asn Lys Leu Asp Ala Phe Phe Ala Thr Pro Glu Asn Ala
65              70              75              80
Asp Lys Pro Ala Tyr Gly Gly Ile His Glu Met Val Glu Ala Arg Ala
      85              90              95
Val Arg Met Gly Gln Leu Gly Met Ser Asn Glu Pro Ser His His Ile
      100             105             110
Pro Tyr Ile Tyr Asn Tyr Ala Gly Ala
      115             120

```

<210> 443

<211> 430

<212> DNA

<213> Homo sapiens

<400> 443

```

accggttacg gctcagtgc acaagagatg ttcgccaaca acctcgtgcg gatgccgctg
60
ctcatggtgc tggcaatccc cttcgccaag atcctctcga cgaccctgtc catcggatcg
120
ggcgggtccgg cggcggtcttc cggccctggc atgggtcatcg gcggagccac tggcgcgga
180
ctgtggcgcc tcctcgaggg gctgccaggt atcccatcct caccgatgag tttcgtcatt
240
gtcggcatga tcgcctgctt cgggtgcggtt gcccatgccc cactcggcgt gctgctcatg
300
gttggcgaga tgaccggaaa cctgtcgctg ctgcgtcctg gcatgatcgc cgtcgccgtc
360
gctggccgag ttgtcgggga cacttcgatc tacacctctc agctcaagga tcgcctggag
420
ggcgacgcgt
430

```

<210> 444

<211> 143

<212> PRT

<213> Homo sapiens

<400> 444

```

Thr Gly Tyr Gly Ser Val Gln Gln Glu Met Phe Ala Asn Asn Leu Val
1      5      10      15
Arg Met Pro Leu Leu Met Val Leu Ala Ile Pro Phe Ala Lys Ile Leu
      20      25      30
Ser Thr Thr Leu Ser Ile Gly Ser Gly Gly Pro Ala Ala Ser Ser Gly
      35      40      45
Pro Gly Met Val Ile Gly Gly Ala Thr Gly Ala Ala Leu Trp Arg Leu
      50      55      60
Leu Glu Gly Leu Pro Gly Ile Pro Ser Ser Pro Met Ser Phe Val Ile
65      70      75      80
Val Gly Met Ile Ala Cys Phe Gly Ala Val Ala His Ala Pro Leu Gly
      85      90      95
Val Leu Leu Met Val Gly Glu Met Thr Gly Asn Leu Ser Leu Leu Ala

```

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| | | | | 100 | | | | | 105 | | | | 110 | | | |
| Pro | Gly | Met | Ile | Ala | Val | Ala | Val | Ala | Gly | Arg | Val | Val | Gly | Asp | Thr | |
| | | 115 | | | | | 120 | | | | | 125 | | | | |
| Ser | Ile | Tyr | Thr | Ser | Gln | Leu | Lys | Asp | Arg | Leu | Glu | Gly | Asp | Ala | | |
| | | 130 | | | | 135 | | | | | 140 | | | | | |

```
<210> 445
<211> 360
<212> DNA
<213> Homo sapiens
```

```
<400> 445
ccatgggggct gcctagcctc tgggggaggcc cctcagctgg tgacaccagc agggcagatt
60
tcttgccttta ttgtccaccc tgtccagggt tccctctgtt tgtgaggggag ctgctgccac
120
cttggggtcca ggaagcatga agctccgcag gtcagcctcc tgggtgggagg acttttcctt
180
agtttttcttt gctcttctgc tctgagtcca gccctggctg gacctttgat cccttctctc
240
tttatcagga aattttctga ctttcttctt ttgccttttc aagatctgtg atgccatctc
300
caagtgggaa caagccatga aggagctgca ccccggaag tctgagggtg ggacacgcgt
360
```

```
<210> 446
<211> 101
<212> PRT
<213> Homo sapiens
```

```

<400> 446
Met Ala Cys Ser His Leu Glu Met Ala Ser Gln Ile Leu Lys Arg Gln
 1          5          10          15
Lys Lys Lys Val Arg Lys Phe Pro Asp Lys Glu Arg Arg Asp Gln Arg
          20          25          30
Ser Ser Gln Gly Trp Thr Gln Ser Arg Arg Ala Lys Lys Thr Lys Glu
          35          40          45
Lys Ser Ser His Gln Glu Ala Asp Leu Arg Ser Phe Met Leu Pro Gly
          50          55          60
Pro Lys Val Ala Ala Ala Pro Ser Gln Thr Glu Gly Thr Leu Asp Arg
65          70          75          80
Val Ser Asn Lys Ala Arg Asn Leu Pro Cys Trp Cys His Gln Leu Arg
          85          90          95
Gly Leu Pro Arg Gly
          100

```

```
<210> 447
<211> 487
<212> DNA
<213> Homo sapiens
```

```
<400> 447
acgcgtgaag ggggaaattg ctctgtgccac ctgaggatta atcattaccc tggaaccctt
60
```

cccaaggcca tcaaggaaca cgcacccctt accagacctt ccagctgctg ggggctctcc
 120
 gagtgaggct gaggtcatgg agaagggaaat ggggggcccc catggccagc tggacctgat
 180
 cactgcctcc ccactcagcc acagccctca gggccctgtg ccagtccaga agcccattca
 240
 gggacacctt tggccaatgt tctgtttcat ctgcgaggca accttcccca gtgccccaac
 300
 catagcgttt tccccaaaac accctcagga aggagggacc actacctgtg cagggggggc
 360
 caggagcctc ctgagagcct catatgggga ggaagtggta ccatctcacc cccattgcct
 420
 ttctctccta ctccacctg gccagcttcc ctcaagtccc ctctgcctc agtgccccct
 480
 cacgcgt
 487

<210> 448

<211> 117

<212> PRT

<213> Homo sapiens

<400> 448

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Glu | Lys | Gly | Met | Gly | Gly | Pro | His | Gly | Gln | Leu | Asp | Leu | Ile | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Ser | Pro | Leu | Ser | His | Ser | Pro | Gln | Gly | Pro | Val | Pro | Val | Gln | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Pro | Ile | Gln | Gly | His | Leu | Trp | Pro | Met | Phe | Cys | Phe | Ile | Cys | Glu | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Thr | Phe | Pro | Ser | Ala | Pro | Thr | Ile | Ala | Phe | Ser | Pro | Lys | His | Pro | Gln |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Glu | Gly | Gly | Thr | Thr | Thr | Cys | Ala | Gly | Gly | Ala | Arg | Ser | Leu | Leu | Arg |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ala | Ser | Tyr | Gly | Glu | Glu | Val | Val | Pro | Ser | His | Pro | His | Cys | Leu | Ser |
| | | | | 85 | | | | 90 | | | | | 95 | | |
| Leu | Leu | Leu | Pro | Pro | Gly | Gln | Leu | Pro | Ser | Val | Pro | Leu | Leu | Pro | Gln |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Cys | Pro | Phe | Thr | Arg | | | | | | | | | | | |
| | | | 115 | | | | | | | | | | | | |

<210> 449

<211> 353

<212> DNA

<213> Homo sapiens

<400> 449

gagctcagcc agttggagtt tgagaagcgg cagctgcaca gggacttggg gcaggccaag
 60
 gagaaggggg agcgggcaga gaagctggag agggagctac agcgactcca ggaggagaac
 120
 gggaggctgg ccaggaaggt gacctccctg gagacagcca ccgagaaagt cgaggccctg
 180
 gacatgaga gccagggcct gcagctggag aaccggactc tgaggaagtc tctggacacc
 240

ttgcagaacg tgtccctgca gcttgagggc ctggagcgtg acaacaagca gctggacgca
 300
 gagaacctgg agctgcgcag gctggtggag accatgcgga gacgacaacg cgt
 353

<210> 450
 <211> 117
 <212> PRT
 <213> Homo sapiens

<400> 450
 Glu Leu Ser Gln Leu Glu Phe Glu Lys Arg Gln Leu His Arg Asp Leu
 1 5 10 15
 Glu Gln Ala Lys Glu Lys Gly Glu Arg Ala Glu Lys Leu Glu Arg Glu
 20 25 30
 Leu Gln Arg Leu Gln Glu Glu Asn Gly Arg Leu Ala Arg Lys Val Thr
 35 40 45
 Ser Leu Glu Thr Ala Thr Glu Lys Val Glu Ala Leu Glu His Glu Ser
 50 55 60
 Gln Gly Leu Gln Leu Glu Asn Arg Thr Leu Arg Lys Ser Leu Asp Thr
 65 70 75 80
 Leu Gln Asn Val Ser Leu Gln Leu Glu Gly Leu Glu Arg Asp Asn Lys
 85 90 95
 Gln Leu Asp Ala Glu Asn Leu Glu Leu Arg Arg Leu Val Glu Thr Met
 100 105 110
 Arg Arg Arg Gln Arg
 115

<210> 451
 <211> 444
 <212> DNA
 <213> Homo sapiens

<400> 451
 gtgatgcggc tgactaagcc tactttattc accaatatcc cagtaacatg tgaagagaaa
 60
 gacttacctg gagatctctt taaccagctg atgagagatg atccttcaac cgттаатггт
 120
 gcagaagttt таатгттггг агaaатгctg actttaccac agaatttttg гаатататт
 180
 ttgggagaga ccttttccag ttatatcagc gttcataatg atagcaatca agttgtaaaa
 240
 gacatattag таaaagctga tcttcagaca agttctcagc gtttaaатct ttcagcctcc
 300
 аатгctgcag тггctgaact таaaccggat тгттгтаттг atgatgtcat acatcatgaa
 360
 gtcaaagaaa ttggaacaca catcttggtg tgtgctgtga gttatacaac tcaggctgga
 420
 gaaaaaatgt аттсcаgaaa аттс
 444

<210> 452
 <211> 148
 <212> PRT

<213> Homo sapiens

<400> 452

```

Val Met Arg Leu Thr Lys Pro Thr Leu Phe Thr Asn Ile Pro Val Thr
 1           5           10           15
Cys Glu Glu Lys Asp Leu Pro Gly Asp Leu Phe Asn Gln Leu Met Arg
      20           25           30
Asp Asp Pro Ser Thr Val Asn Gly Ala Glu Val Leu Met Leu Gly Glu
      35           40           45
Met Leu Thr Leu Pro Gln Asn Phe Gly Asn Ile Phe Leu Gly Glu Thr
      50           55           60
Phe Ser Ser Tyr Ile Ser Val His Asn Asp Ser Asn Gln Val Val Lys
65           70           75           80
Asp Ile Leu Val Lys Ala Asp Leu Gln Thr Ser Ser Gln Arg Leu Asn
      85           90           95
Leu Ser Ala Ser Asn Ala Ala Val Ala Glu Leu Lys Pro Asp Cys Cys
      100          105          110
Ile Asp Asp Val Ile His His Glu Val Lys Glu Ile Gly Thr His Ile
      115          120          125
Leu Val Cys Ala Val Ser Tyr Thr Thr Gln Ala Gly Glu Lys Met Tyr
      130          135          140
Phe Arg Lys Phe
145

```

<210> 453

<211> 373

<212> DNA

<213> Homo sapiens

<400> 453

```

gctagctctg accccacctt tgccaagtgg cactaggggtg gccaatgggg actaggggtg
60
tataattgga aaatacagtc tcccctgttg tccaagaaag gccccagatg acctgggggt
120
tgaaaggcac tcccgtctgg tgcttcctgg gagcaggtgg ggggcagcgg ggcggcgggg
180
cctgtctgtg ctgagcatcc ccagctccag ggcaggtgct gggctctgag cccactggt
240
gcgttttggg atgggctggc ctgcgcggct gtcgtttcag agcacacaga agagaccctg
300
ccacaggagg agtgggagga gaagctgttg atgttcctgc gagacaccct ggccatcatt
360
tctgacaacg cgt
373

```

<210> 454

<211> 108

<212> PRT

<213> Homo sapiens

<400> 454

```

Met Met Ala Arg Val Ser Arg Arg Asn Ile Asn Ser Phe Ser Ser His
 1           5           10           15
Ser Ser Cys Gly Arg Val Ser Ser Val Cys Ser Glu Thr Thr Ala Ala

```

```

                20                25                30
Gln Ala Ser Pro Ser Gln Asn Ala Pro Val Gly Leu Arg Ala Gln His
                35                40                45
Leu Pro Trp Ser Trp Gly Cys Ser Ala Gln Thr Gly Pro Ala Ala Pro
                50                55                60
Leu Pro Pro Thr Cys Ser Gln Glu Ala Pro Ser Gly Ser Ala Phe Gln
65                70                75                80
Ala Pro Gly His Leu Gly Pro Phe Leu Asp Asn Arg Gly Asp Cys Ile
                85                90                95
Phe Gln Leu Tyr Asn Pro Ser Pro His Trp Pro Pro
                100                105

```

<210> 455

<211> 602

<212> DNA

<213> Homo sapiens

<400> 455

```

cctaggcaaa gcatgcccac cctacctccc cttaccctta cccttcattt tcccctaagc
60
accatcacc accgatgtta ctgtatgtgt ttgcttacgc tgacagccca ccaccacac
120
tggaatgtcc gcacgacaaa ggcaggactc ttggctgcct tagccacagc tggatcccca
180
gagctttgta ggggtgttggg cacagagtgg agtgggtact taataagtat ctgtggaatg
240
aacatgtaca gagtgaagcc ctgtgcccag aacaggctca aaataagctc aattcctttc
300
cttgccactt actaagtcct ttttctctcg cccctctca ctgacctggt tttgatgcca
360
gacagcacag atgggctagg gaggcagggtg gggaagcaga gatctgcgtc tcttgagct
420
ggagctggtg ggtggggctc cttcctggtg ctgcggaggc tcattgggga ggtggcagcg
480
acccctcag gagcctctgt cgctgcact cagatctgtg cctttccaca gcgcccggag
540
gaagacttgc tcaggagata aattcaaaga caacaggaag ctggacgtgg tggctcacgc
600
gt
602

```

<210> 456

<211> 100

<212> PRT

<213> Homo sapiens

<400> 456

```

Met Pro Thr Leu Pro Pro Leu Thr Leu Thr Leu His Phe Pro Leu Ser
1                5                10                15
Thr His His His Arg Cys Tyr Cys Met Cys Leu Leu Thr Leu Thr Ala
20                25                30
His His Pro His Trp Asn Val Arg Thr Thr Lys Ala Gly Leu Leu Ala
35                40                45
Ala Leu Ala Thr Ala Gly Ser Pro Glu Leu Cys Arg Val Leu Gly Thr

```

50 55 60
 Glu Trp Ser Gly Tyr Leu Ile Ser Ile Cys Gly Met Asn Met Tyr Arg
 65 70 75 80
 Val Lys Pro Cys Ala Gln Asn Arg Leu Lys Ile Ser Ser Ile Pro Phe
 85 90 95
 Leu Ala Thr Tyr
 100

<210> 457
 <211> 324
 <212> DNA
 <213> Homo sapiens

<400> 457
 acgcgtcatg tggatattcc tgggaggttc ccaggaacgt ttctggacgg gccccgacc
 60
 agaggtcagg gaacttttct tattattctg cacgtgccca gggatagtca aaccaggtct
 120
 tccccttctg ctggccgcaa cacgccagcc gccgccacga ccgcacgctg aattcatgac
 180
 ccgacacgcg acgtggcagc gagcacaccc accgctagga gaaagagcgc tcatcgaaga
 240
 tcgttttctg tccactggcc agcgccacta tgatcagggtg gggatatccgc ccggcggcgg
 300
 gagcaccggg acgccggggc gccg
 324

<210> 458
 <211> 105
 <212> PRT
 <213> Homo sapiens

<400> 458
 Met Trp Ile Phe Leu Gly Gly Ser Gln Glu Arg Phe Trp Thr Gly Pro
 1 5 10 15
 Arg Pro Glu Val Arg Glu Leu Phe Leu Leu Phe Cys Thr Cys Pro Gly
 20 25 30
 Ile Val Lys Pro Gly Leu Pro Leu Leu Leu Ala Ala Thr Arg Gln Pro
 35 40 45
 Pro Pro Arg Pro His Ala Glu Phe Met Thr Arg His Ala Thr Trp Gln
 50 55 60
 Arg Ala His Pro Pro Leu Gly Glu Arg Ala Leu Ile Glu Asp Arg Phe
 65 70 75 80
 Leu Ser Thr Gly Gln Arg His Tyr Asp Gln Val Gly Tyr Pro Pro Gly
 85 90 95
 Gly Gly Ser Thr Gly Thr Pro Gly Arg
 100 105

<210> 459
 <211> 415
 <212> DNA
 <213> Homo sapiens

<400> 459

acgcggttcat tcggcatctg cttccatgga tttcctgcgg ggaggcgcgg ccgagagtgc
60
gggtgtcgaa cacgacactt cagtgatcgt ttcaaccacc ggccgagatg ggtcctgacg
120
ctggggttca agccgcttgc gctcgcgctc ctgatctcgg gcagcgcgat tccgggtggtt
180
tatgctgccg gcagacgact gcgcacgccc ctcacgaggt atctgcacat gcttaaaggg
240
agaggcctca cccgacagct gggcatcggg tttacgaagc ccacgacgaa tcttcctcgc
300
ctcctcaaag ccgatcatcg gcatgccagg tttgtggttg aatgcttcga tcaacacact
360
aggatcggtg gggccacca catacaccga gcggcaatcg agcggatacg acctc
415

<210> 460

<211> 105

<212> PRT

<213> Homo sapiens

<400> 460

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Pro | Met | Ile | Gly | Phe | Glu | Glu | Ala | Arg | Lys | Ile | Arg | Arg | Gly | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Lys | Ser | Asp | Ala | Gln | Leu | Ser | Gly | Glu | Ala | Ser | Pro | Phe | Lys | His |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | Gln | Ile | Pro | Arg | Glu | Gly | Arg | Ala | Gln | Ser | Ser | Ala | Gly | Ser | Ile |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Asn | His | Arg | Asn | Arg | Ala | Ala | Arg | Asp | Gln | Glu | Arg | Glu | Arg | Lys | Arg |
| | | | 50 | | | 55 | | | | | 60 | | | | |
| Leu | Glu | Ala | Gln | Arg | Gln | Asp | Pro | Ser | Arg | Pro | Val | Val | Glu | Thr | Ile |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Thr | Glu | Val | Ser | Cys | Ser | Thr | Pro | Ala | Leu | Ser | Ala | Ala | Pro | Pro | Arg |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Arg | Lys | Ser | Met | Glu | Ala | Asp | Ala | Glu | | | | | | | |
| | | | 100 | | | | | 105 | | | | | | | |

<210> 461

<211> 357

<212> DNA

<213> Homo sapiens

<400> 461

acgcgttcga ggtcggctaa atttatcatg cgcacgacaa agagagtagt ggctcacaac
60
cggttcacat gcatgatgac aaaaactggc agaataagagt tgatgtcatc ccgtctacca
120
gtccttagaa ccagctcaga ggtcccggt gtcggtaccg tcgagactca gtacacaact
180
gtcgcgatac cggacgaccc tcttcatctg gttgcagatg ggcgtctcaa tcacgtcact
240
gtcgcttacg aaacctacgg gaagctcaat acgtccagcg acaatgcggt ctatacctgt
300
catgcgctta ctgggtgatgc ccatgcagcc ggatttcacc ccggtgtagt ccgtccg
357

<210> 462
 <211> 119
 <212> PRT
 <213> Homo sapiens

<400> 462
 Thr Arg Ser Arg Ser Ala Lys Phe Ile Met Arg Thr Thr Lys Arg Val
 1 5 10 15
 Val Ala His Asn Arg Val Thr Cys Met Met Thr Lys Thr Gly Arg Ile
 20 25 30
 Glu Leu Met Ser Ser Arg Leu Pro Ala Pro Arg Thr Ser Ser Glu Ser
 35 40 45
 Pro Gly Val Gly Thr Val Glu Thr Gln Tyr Thr Thr Val Ala Ile Pro
 50 55 60
 Asp Asp Pro Leu His Leu Val Ala Asp Gly Arg Leu Asn His Val Thr
 65 70 75 80
 Val Ala Tyr Glu Thr Tyr Gly Lys Leu Asn Thr Ser Ser Asp Asn Ala
 85 90 95
 Val Tyr Thr Cys His Ala Leu Thr Gly Asp Ala His Ala Ala Gly Phe
 100 105 110
 His Pro Gly Val Val Arg Pro
 115

<210> 463
 <211> 434
 <212> DNA
 <213> Homo sapiens

<400> 463
 gtgcacgggg tatgcgaggg atgcggcatt gccaccaatg ccgctgacct gcgcagatac
 60
 gaggcagctg gtgacgatga agtggtgcga tgcgaggaat gcgatcgtat cctggtgcgt
 120
 accggagagt ccatctgagc ccttcttctg gcggtgatgc cgggatatcc gtagaattag
 180
 cggtcggacg agccatccgg gtgatcgagg cagcgggtgag ttgtcgagga aagtccgggc
 240
 tccatagagc aggggtggtgg gtaacgccc cccgggggtga cccgcgggaa agtgccacag
 300
 agaacagact gccggtttcg agccggtgag ggtgaaacgg tggagtaagt gcccaccgag
 360
 tcatcggtga cggtgacggc atggcaaacc ccacctggag caaggccaag aagaccgtga
 420
 ggtcgaggac gcgt
 434

<210> 464
 <211> 127
 <212> PRT
 <213> Homo sapiens

<400> 464
 Met Pro Ser Pro Ser Pro Met Thr Arg Trp Ala Leu Thr Pro Pro Phe

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | | |
| His | Pro | His | Arg | Leu | Glu | Thr | Gly | Ser | Leu | Phe | Ser | Val | Ala | Leu | Ser | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | |
| Arg | Gly | Ser | Pro | Arg | Val | Gly | Val | Thr | His | His | Pro | Ala | Leu | Trp | Ser | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | |
| Pro | Asp | Phe | Pro | Arg | Gln | Leu | Thr | Ala | Ala | Ala | Ile | Thr | Arg | Met | Ala | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| Arg | Pro | Thr | Ala | Asn | Ser | Thr | Asp | Ile | Pro | Ala | Ser | Pro | Pro | Gln | Glu | | |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | | | |
| Gly | Leu | Arg | Trp | Thr | Leu | Arg | Tyr | Ala | Pro | Gly | Tyr | Asp | Arg | Ile | Pro | | |
| | | | | 85 | | | | 90 | | | | | 95 | | | | |
| Arg | Ile | Ala | Pro | Leu | His | Arg | His | Gln | Leu | Pro | Arg | Ile | Cys | Ala | Gly | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Gln | Arg | His | Trp | Trp | Gln | Cys | Arg | Ile | Pro | Arg | Ile | Pro | Arg | Ala | | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |

<210> 465

<211> 438

<212> DNA

<213> Homo sapiens

<400> 465

gatacatttag aatttatgga agaagctgat gtgaaagcta tgggtcaaatac tggcactgtg
60

gctgtattgc taccaggagc attttacacc ttgaaagaaa ctcaacttcc accgatgaat
120

ttgttacgtc agtacggagt agacattgct atttcgacgg atgctaatacc agggacgtcg
180

ccagcggttat cattacgggtt aatgatgaat atggcatgta ccttgtttgg tatgacacct
240

gaaaccgccc ttgcaggggt aacaattcat gcggcaaaag cgttggggat tagcgattct
300

catggcactt tagaagttgg caaggtagct gattttgtct gctgggatgt ggaaagcccc
360

ggtgaacttt gttattgggt aggagagcag ttagtaaagc aacgtattca gcacggagta
420

tcccatgaat aatctaga

438

<210> 466

<211> 143

<212> PRT

<213> Homo sapiens

<400> 466

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Asp | His | Leu | Glu | Phe | Met | Glu | Glu | Ala | Asp | Val | Lys | Ala | Met | Val | Lys | | |
| 1 | | | | 5 | | | | 10 | | | | 15 | | | | | |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Ser | Gly | Thr | Val | Ala | Val | Leu | Leu | Pro | Gly | Ala | Phe | Tyr | Thr | Leu | Lys | | |
| | | 20 | | | | | 25 | | | | 30 | | | | | | |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Glu | Thr | Gln | Leu | Pro | Pro | Met | Asn | Leu | Leu | Arg | Gln | Tyr | Gly | Val | Asp | | |
| | 35 | | | | | 40 | | | | 45 | | | | | | | |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Ile | Ala | Ile | Ser | Thr | Asp | Ala | Asn | Pro | Gly | Thr | Ser | Pro | Ala | Leu | Ser | | |
| | 50 | | | | 55 | | | | 60 | | | | | | | | |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Leu | Arg | Leu | Met | Met | Asn | Met | Ala | Cys | Thr | Leu | Phe | Gly | Met | Thr | Pro | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|

```

65          70          75          80
Glu Thr Ala Leu Ala Gly Val Thr Ile His Ala Ala Lys Ala Leu Gly
      85          90          95
Ile Ser Asp Ser His Gly Thr Leu Glu Val Gly Lys Val Ala Asp Phe
      100         105         110
Val Cys Trp Asp Val Glu Ser Pro Gly Glu Leu Cys Tyr Trp Leu Gly
      115         120         125
Glu Gln Leu Val Lys Gln Arg Ile Gln His Gly Val Ser His Glu
      130         135         140

```

<210> 467
 <211> 460
 <212> DNA
 <213> Homo sapiens

```

<400> 467
ntttccctgg ctattggcca tgtgggacac aacgttccgc ctaccccaga gcggttaagc
60
tgcacccctg caccttcttc tcccaccgct tcaaagccac agtgaggaac ttcggagctt
120
ctcgcagtga agatggcggt ggaggaatgg atgccctggc tagaagaggc ggaatatctg
180
ttgattgtgt ggaccgacca caaaaacctg gagtatctcc acacaaccaa gtgcctcaac
240
tccaggcaag caagaagggc ccagctgttt acctgggtcc acttttccct ctcctaccgg
300
ccgggggtcca agaacatcag gctggatgcc ctttcttgcc actttatggg catgggcccc
360
ttcctccagg cttgcctgtc acccggggtc ccgtcaaacc ctggccttcg tgcgacaaca
420
ctcttggtgc cttctatggt tctgtatggt gccgcaattg
460

```

<210> 468
 <211> 118
 <212> PRT
 <213> Homo sapiens

```

<400> 468
Gly Thr Ser Glu Leu Leu Ala Val Lys Met Ala Leu Glu Glu Trp Met
1      5      10      15
Pro Trp Leu Glu Glu Ala Glu Tyr Leu Leu Ile Val Trp Thr Asp His
      20      25      30
Lys Asn Leu Glu Tyr Leu His Thr Thr Lys Cys Leu Asn Ser Arg Gln
      35      40      45
Ala Arg Arg Ala Gln Leu Phe Thr Trp Phe His Phe Ser Leu Ser Tyr
      50      55      60
Arg Pro Gly Ser Lys Asn Ile Arg Leu Asp Ala Leu Ser Cys His Phe
65     70     75     80
Met Gly Met Gly Pro Phe Leu Gln Ala Cys Leu Ser Pro Gly Leu Pro
      85     90     95
Ser Asn Pro Gly Leu Arg Ala Thr Thr Leu Leu Val Pro Ser Met Val
      100    105    110
Leu Tyr Val Ala Ala Ile

```

115

<210> 469
 <211> 381
 <212> DNA
 <213> Homo sapiens

<400> 469
 cttgtgcaca cggtattttt ccaatacaaa tagtttaaaa agtaaaactcc aaatacctat
 60
 aagccccctc aaagcacctt ccaaatatga accttggttaa tgcccaaggt ccagaggggt
 120
 cccccagaaa ggcccaggag cctggggcat gggaaagctg tcgggggtccc catgctgact
 180
 ccctggactc caagcgatat tccataaagc cagggcctcc tggctgcggg agggaggcct
 240
 tgacccaaaa tccattcggc cctggatact ggagaggcag aggcctctgc tgatgagaag
 300
 ccctgagttc ctggctagct gtggttaacc acaaaaaatg cgggggggtga tgattttcga
 360
 agtccatcgg caaagaaaga c
 381

<210> 470
 <211> 110
 <212> PRT
 <213> Homo sapiens

<400> 470
 Met Asp Phe Glu Asn His His Pro Pro His Phe Leu Trp Leu Thr Thr
 1 5 10 15
 Ala Ser Gln Glu Leu Arg Ala Ser His Gln Gln Arg Pro Leu Pro Leu
 20 25 30
 Gln Tyr Pro Gly Pro Asn Gly Phe Trp Val Lys Ala Ser Leu Pro Gln
 35 40 45
 Pro Gly Gly Pro Gly Phe Met Glu Tyr Arg Leu Glu Ser Arg Glu Ser
 50 55 60
 Ala Trp Gly Pro Arg Gln Leu Ser His Ala Pro Gly Ser Trp Ala Phe
 65 70 75 80
 Leu Gly Asp Pro Ser Gly Pro Trp Ala Leu Thr Arg Phe Ile Phe Gly
 85 90 95
 Arg Cys Phe Glu Gly Ala Tyr Arg Tyr Leu Glu Phe Thr Phe
 100 105 110

<210> 471
 <211> 378
 <212> DNA
 <213> Homo sapiens

<400> 471
 accggtgact acctgcagca ctggattgac atgggtaaaa agggcggcga ccgcatgccca
 60
 gaggtcttcc tggttaactg gttccgccgc ggcgacgatg gccgcttctt gtggccgnngg
 120

cttggcgaaa acttcccggg cctanagtgg atcatcgacc gcattgaagg caacgtagag
 180
 gccgaggaca cgggtggtcgg acgcaccgcc cgcgccgagg acatcgactt gcaaggcctt
 240
 gacttcgatg tcgaogacgt tcgcgccgca ctgcgccgtt acccgaagga atgggaaggg
 300
 gatatgcaag acaacgccga gtacctgaac ttcttgggct cccgcgtgcc cgaggaagtg
 360
 tggaaccagt tccgcgcc
 378

<210> 472

<211> 126

<212> PRT

<213> Homo sapiens

<400> 472

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Gly | Asp | Tyr | Leu | Gln | His | Trp | Ile | Asp | Met | Gly | Lys | Lys | Gly | Gly |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Asp | Arg | Met | Pro | Glu | Val | Phe | Leu | Val | Asn | Trp | Phe | Arg | Arg | Gly | Asp |
| | | | 20 | | | | 25 | | | | | | 30 | | |
| Asp | Gly | Arg | Phe | Leu | Trp | Pro | Xaa | Leu | Gly | Glu | Asn | Phe | Pro | Val | Leu |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Xaa | Trp | Ile | Ile | Asp | Arg | Ile | Glu | Gly | Asn | Val | Glu | Ala | Glu | Asp | Thr |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Val | Val | Gly | Arg | Thr | Ala | Arg | Ala | Glu | Asp | Ile | Asp | Leu | Gln | Gly | Leu |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Asp | Phe | Asp | Val | Asp | Asp | Val | Arg | Ala | Ala | Leu | Ala | Val | Asp | Pro | Lys |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Glu | Trp | Glu | Gly | Asp | Met | Gln | Asp | Asn | Ala | Glu | Tyr | Leu | Asn | Phe | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gly | Ser | Arg | Val | Pro | Glu | Glu | Val | Trp | Asn | Gln | Phe | Arg | Ala | | |
| | | | 115 | | | | 120 | | | | | | 125 | | |

<210> 473

<211> 339

<212> DNA

<213> Homo sapiens

<400> 473

accggttggt gggggaaggg acccatccca tgccacctgt cctagaaaat gtttcccctt
 60
 gttgagcagc tgctggatct agggctgctg ggtctaagtc caaaaaggga aaaaggaaaa
 120
 aggcaccaag taaaagaagg gggaagctgc caaaaccccc cctgccaaaa ctctcccacc
 180
 ctgcttccat ttccctctcc agggaacagg tgtacctccc ctctccctg ttctctcag
 240
 atgccccagg ggctctctac ttcatctctg ccgacctgc caggagtggc ctcaggggta
 300
 gaggctccta gttggagaat ttgcttgag gaaggtgaa
 339

<210> 474

<211> 97
 <212> PRT
 <213> Homo sapiens

<400> 474

```

Met Phe Pro Leu Val Glu Gln Leu Leu Asp Leu Gly Leu Leu Gly Leu
 1             5             10             15
Ser Pro Lys Arg Glu Lys Gly Lys Arg His Gln Val Lys Glu Gly Gly
      20             25             30
Ser Cys Gln Asn Pro Pro Cys Gln Asn Ser Pro Thr Leu Leu Pro Phe
      35             40             45
Pro Ser Pro Gly Asn Arg Cys Thr Ser Pro Pro Pro Cys Pro Pro Gln
      50             55             60
Met Pro Gln Gly Leu Ser Thr Ser Phe Leu Pro Thr Leu Pro Gly Val
65             70             75             80
Ala Ser Gly Val Glu Ala Pro Ser Trp Arg Ile Cys Leu Gln Glu Gly
      85             90             95
Glu

```

<210> 475
 <211> 345
 <212> DNA
 <213> Homo sapiens

<400> 475

```

acgcgtgaag ggtccctcc aaactctgag cctccttcca agccttgctg ggagctcccc
60
agcgctgcc ggagaggcct ctctccagg cgggcttccc gcgccgatgt gaaggagagg
120
ctgccccaga ggggtctgga tcgtaatcca gaaagggaca gtcccacagc cataatcccc
180
aatgctggga ctcttcagta aaggaagaga tggctttttc gttcatctgc ctttctgaaa
240
ggtaaaatat ctccagatcc gggctctctg ggcgactgcg tatgtggggg tccctgaagc
300
ctttgatgga tcttgtaga agtgggttgt tcatcttggg gtttt
345

```

<210> 476
 <211> 111
 <212> PRT
 <213> Homo sapiens

<400> 476

```

Met Asn Asn Pro Leu Leu Thr Arg Ser Ile Lys Gly Phe Arg Asp Pro
 1             5             10             15
His Ile Arg Ser Arg Pro Glu Ser Pro Asp Leu Glu Ile Phe Tyr Leu
      20             25             30
Ser Glu Arg Gln Met Asn Glu Lys Ala Ile Ser Ser Phe Thr Glu Glu
      35             40             45
Ser Gln His Ser Gly Leu Trp Leu Trp Asp Cys Pro Phe Leu Asp Tyr
      50             55             60
Asp Pro Asp Pro Ser Gly Ala Ala Ser Pro Ser His Arg Arg Gly Lys

```

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Pro | Ala | Trp | Arg | Arg | Gly | Leu | Ser | Gly | Arg | Arg | Trp | Gly | Ala | Pro | Ser |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Lys | Ala | Trp | Lys | Glu | Ala | Gln | Ser | Leu | Glu | Gly | Thr | Leu | His | Ala | |
| | | | 100 | | | | | 105 | | | | | 110 | | |

```
<210> 477
<211> 422
<212> DNA
<213> Homo sapiens
```

```
<400> 477
acgcgtggcc gagccagcgt gctcaaggaa atgggtcaacg gcactcttat taacggctgg
60
gactctcccg aggtggaacg ggcactggac ctgtgcatgg cgtgcaaagg gtgcgccga
120
gattgccccca ccggaatcga catggccagc taccgcagca cggttcttga cgaaaaatac
180
cgtcaccgtc tccgccctcg ctcccacctg acgatggggc tgctgcccac gtgggaacgt
240
ttgctcaatc ggaccccagg agcgcgcgtc ctggctaacg cagtgccttc gatgccggtc
300
ttcgcacgtc ttgctagatg gacagccggg gtggatcagc gtcgtccctt ccccgattc
360
cagccctcgg ccagattggc cagtccgcag gccgccccgg ttaaggagat tgtggcggat
420
cc
422
```

```
<210> 478
<211> 140
<212> PRT
<213> Homo sapiens
```

```

<400> 478
Thr Arg Gly Arg Ala Ser Val Leu Lys Glu Met Val Asn Gly Thr Leu
 1          5          10          15
Ile Asn Gly Trp Asp Ser Pro Glu Val Glu Arg Ala Leu Asp Leu Cys
      20          25          30
Met Ala Cys Lys Gly Cys Ala Arg Asp Cys Pro Thr Gly Ile Asp Met
      35          40          45
Ala Ser Tyr Arg Ser Thr Val Leu Asp Glu Lys Tyr Arg His Arg Leu
      50          55          60
Arg Pro Arg Ser His Leu Thr Met Gly Leu Leu Pro Met Trp Glu Arg
65          70          75          80
Leu Leu Asn Arg Thr Pro Gly Ala Pro Ser Leu Ala Asn Ala Val Leu
      85          90          95
Ser Met Pro Val Phe Ala Arg Leu Ala Arg Trp Thr Ala Gly Val Asp
      100          105          110
Gln Arg Arg Pro Leu Pro Arg Phe Gln Pro Ser Ala Arg Leu Ala Ser
      115          120          125
Pro Gln Ala Ala Pro Val Lys Glu Ile Val Ala Asp
      130          135          140

```

<210> 479
 <211> 348
 <212> DNA
 <213> Homo sapiens

<400> 479
 cgctggcca ttggccgggc gctggtgcgg caccgcgac tggtgattgc cgatgagccg
 60
 atctcggcgt tggacatgac catccagaag cagattcttg agctgttcga ggcctgcag
 120
 gcgcagtacg gctttgcctg cctgttcac tccacgacc tggcagcggg ggaacgcac
 180
 gccaccggg tggcggtgat gagcgagggc aggggtggtg aaatgggtgc ccgcgacgag
 240
 atcttcgacc gcccgagca cccctacacc cgcaagctgc tggccgccgc cagccccttg
 300
 gagaaacttg aaaacggtgg ctaccgcac cgccagggcc ccgtaccg
 348

<210> 480
 <211> 116
 <212> PRT
 <213> Homo sapiens

<400> 480
 Arg Val Ala Ile Gly Arg Ala Leu Val Arg His Pro Arg Leu Val Ile
 1 5 10 15
 Ala Asp Glu Pro Ile Ser Ala Leu Asp Met Thr Ile Gln Lys Gln Ile
 20 25 30
 Leu Glu Leu Phe Glu Arg Leu Gln Ala Gln Tyr Gly Phe Ala Cys Leu
 35 40 45
 Phe Ile Ser His Asp Leu Ala Ala Val Glu Arg Ile Ala His Arg Val
 50 55 60
 Ala Val Met Ser Glu Gly Arg Val Val Glu Met Gly Ala Arg Asp Glu
 65 70 75 80
 Ile Phe Asp Arg Pro Gln His Pro Tyr Thr Arg Lys Leu Leu Ala Ala
 85 90 95
 Ala Ser Pro Leu Glu Lys Leu Glu Asn Gly Gly Tyr Arg Ile Arg Gln
 100 105 110
 Gly Pro Val Pro
 115

<210> 481
 <211> 441
 <212> DNA
 <213> Homo sapiens

<400> 481
 aagcttctga ctgtggcatt ctccctgctt aatatgtcct caatatcccc tacttactgg
 60
 gcaaaatcct gcttatgctt tgggactagc tcaaagacca ctcccttgga tgggtgccttc
 120
 cctgccctgc cggcttgccg tggcttcctc agtgtagga ttaccatcac attgcatcat
 180

gagagcagaa gaccatctcc atgtgactgc tgcccctgct cccagcaggg cccacaanca
 240
 cccagtcag gacctggctc acgctgggtg gcggatgccc aggaatgggg ctctggatct
 300
 gcctcttctc ctgcaggacc aggaaccgc tgcccctgtc ctgccccagg aaaccctcag
 360
 taaatcccca gtcatttgag tttccctca gcgccagaga ccaataacac atctccacca
 420
 acctgaaaaa ccttcacgcg t
 441

<210> 482

<211> 120

<212> PRT

<213> Homo sapiens

<400> 482

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Leu | Leu | Thr | Val | Ala | Phe | Ser | Leu | Leu | Asn | Met | Ser | Ser | Ile | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Pro | Thr | Tyr | Trp | Ala | Lys | Ser | Cys | Leu | Cys | Phe | Gly | Thr | Ser | Ser | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Thr | Pro | Leu | Asp | Gly | Ala | Phe | Pro | Ala | Leu | Pro | Ala | Cys | Ala | Gly |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Phe | Leu | Ser | Val | Arg | Ile | Thr | Ile | Thr | Leu | His | His | Glu | Ser | Arg | Arg |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Pro | Ser | Pro | Cys | Asp | Cys | Cys | Pro | Cys | Ser | Gln | Gln | Gly | Pro | Gln | Xaa |
| 65 | | | | 70 | | | | | | 75 | | | | 80 | |
| Pro | Ser | Pro | Gly | Pro | Gly | Ser | Arg | Trp | Val | Ala | Asp | Ala | Gln | Glu | Trp |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Gly | Ser | Gly | Ser | Ala | Ser | Ser | Pro | Ala | Gly | Pro | Gly | Asn | Arg | Cys | Pro |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Val | Pro | Ala | Pro | Gly | Asn | Pro | Gln | | | | | | | | |
| | | | 115 | | | | 120 | | | | | | | | |

<210> 483

<211> 330

<212> DNA

<213> Homo sapiens

<400> 483

acgcgttcat tccctgatgg ccacgcacga gctaacggag ggatggggcg aaggggaaggc
 60
 caagggttgcc tcgaagacca aggagtgtgc agggcaggac ctcgttttaa aggaatatcc
 120
 tctcaccaga gacacgcggc ggccaggcag ggccggagcg gggcctgtgc ccaggctccg
 180
 agcgtctgcc cagcccagca tccctgtccc cagccaggaa tatgtcttcg tggcatagag
 240
 ggagctcttg gagccacacc tgcgtgtgca catgtgtcac cccactgctg ggagggggctc
 300
 tcccgggacc ctgcagcgtg ggctggggccc
 330

<210> 484

<211> 96
 <212> PRT
 <213> Homo sapiens

<400> 484

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Gly | Arg | Arg | Glu | Gly | Gln | Gly | Cys | Leu | Glu | Asp | Gln | Gly | Val | Cys |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Arg | Ala | Gly | Pro | Arg | Phe | Lys | Gly | Ile | Ser | Ser | His | Gln | Arg | His | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Ala | Arg | Gln | Gly | Arg | Ser | Gly | Ala | Cys | Ala | Gln | Ala | Pro | Ser | Val |
| | | | 35 | | | | | 40 | | | | | 45 | | |
| Cys | Pro | Ala | Gln | His | Pro | Cys | Pro | Gln | Pro | Gly | Ile | Cys | Leu | Arg | Gly |
| | | | 50 | | | | | 55 | | | | 60 | | | |
| Ile | Glu | Gly | Ala | Leu | Gly | Ala | Thr | Pro | Ala | Cys | Ala | His | Val | Ser | Pro |
| 65 | | | | | | 70 | | | | | 75 | | | | 80 |
| His | Cys | Trp | Glu | Gly | Leu | Ser | Arg | Asp | Pro | Ala | Ala | Trp | Ala | Gly | Pro |
| | | | | 85 | | | | | 90 | | | | | 95 | |

<210> 485
 <211> 377
 <212> DNA
 <213> Homo sapiens

<400> 485

```

acgcgtgctc ggcgggacga agtcggcgct gatcgcccag tcatgcgccc tgcccggtgcc
60
gcccgattcg gcgatcgccg cattcggccg gccggaatcg agaaggaatg cgtggacgta
120
cgggggatac caaaggaatc ttgtcgaggg cttcgcgccc ctcgacgtgg atcacctgta
180
cccgacggac gtggggaagc cgtcccgcga gctcacggga ctccgcgaca tcgatgtgcg
240
atacgatttg caccgtcgtc ggctgcggtg gcgacacatg ctccgcgata gcctcagcgg
300
tggtttccga cgtcagcagg aacgtggcga cgggtggcat ggcggtcgcc gttatgtcgg
360
cattcccatt cctcggg
377

```

<210> 486
 <211> 111
 <212> PRT
 <213> Homo sapiens

<400> 486

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Arg | Pro | Ala | Arg | Ala | Ala | Gln | Phe | Gly | Asp | Arg | Arg | Ile | Arg | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Gly | Ile | Glu | Lys | Glu | Cys | Val | Asp | Val | Arg | Gly | Ile | Pro | Lys | Glu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Cys | Arg | Gly | Leu | Arg | Gly | Pro | Arg | Arg | Gly | Ser | Pro | Val | Pro | Asp |
| | | | 35 | | | | | 40 | | | | | 45 | | |
| Gly | Arg | Gly | Glu | Ala | Val | Pro | Gln | Ala | His | Gly | Thr | Pro | Arg | His | Arg |
| | | | 50 | | | | | 55 | | | | 60 | | | |
| Cys | Ala | Ile | Arg | Phe | Ala | Pro | Ser | Ser | Ala | Ala | Cys | Ala | Thr | His | Ala |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 65 | | 70 | | 75 | | 80 | | | | | | | | | |
| Pro | Arg | Ser | Pro | Gln | Arg | Trp | Phe | Pro | Thr | Ser | Ala | Gly | Thr | Trp | Arg |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Arg | Val | Ala | Trp | Arg | Ser | Pro | Leu | Cys | Arg | His | Ser | His | Ser | Ser | |
| | | | 100 | | | | | 105 | | | | | | 110 | |

<210> 487
 <211> 459
 <212> DNA
 <213> Homo sapiens

<400> 487
 nnacgcgtaa gatcgattgt ggatcagcac cgatgctggg cccccgacg ttgttgttgg
 60
 cgggtgttgt tgtaaggagt gtgtgtgatg cgtgttgggtg ttcctactga ggttaagaat
 120
 agtgagtttc gtgtggctgt gacgccggcg ggtgttcattg cgttggttgg tcgtgggtcat
 180
 gaggtgttgg ttcaggctgg tgctggtgtg ggttcgggta ttccggattc ggattttgtg
 240
 ggtgctggtg cgcggttgt ggggtgatgtg gagtcggtgt ggggtgatgc tgatttgggtg
 300
 ttgaagggtga aggagcctgt tgcggaggag tatgggagggt tgcattgaggg tttggttctt
 360
 tttacgtatc ttcatttggc tgctgatgag gcgttgactc gtgagctttt ggggcgtggg
 420
 gtgacgtcga ttgcgtatga gacggtggag ttggccgat
 459

<210> 488
 <211> 124
 <212> PRT
 <213> Homo sapiens

<400> 488
 Met Arg Val Gly Val Pro Thr Glu Val Lys Asn Ser Glu Phe Arg Val
 1 5 10 15
 Ala Val Thr Pro Ala Gly Val His Ala Leu Val Gly Arg Gly His Glu
 20 25 30
 Val Leu Val Gln Ala Gly Ala Gly Val Gly Ser Gly Ile Pro Asp Ser
 35 40 45
 Asp Phe Val Gly Ala Gly Ala Arg Val Val Gly Asp Val Glu Ser Val
 50 55 60
 Trp Gly Asp Ala Asp Leu Val Leu Lys Val Lys Glu Pro Val Ala Glu
 65 70 75 80
 Glu Tyr Gly Arg Leu His Glu Gly Leu Val Leu Phe Thr Tyr Leu His
 85 90 95
 Leu Ala Ala Asp Glu Ala Leu Thr Arg Glu Leu Leu Gly Arg Gly Val
 100 105 110
 Thr Ser Ile Ala Tyr Glu Thr Val Glu Leu Ala Asp
 115 120

<210> 489
 <211> 542

<212> DNA

<213> Homo sapiens

<400> 489

nacgcgtttg gcgtactgag tgcggtggtg gatggcgacg acagtggcaa gccgctgctc
 60
 aaccagcacg gttgctacaa agtgcgcttt ccatttaccg gcgatcaaaa gcccagcact
 120
 cgggggttcgg catggctgcg caggggtgctg ttgtctgccg gttccagcca tggcatgcac
 180
 tttccgctgc tcaaaggcag tgaagtgttg gtgtcatttc tggggggcga ccccgaccgg
 240
 ccgattatcg ttggctgcgt accaaactcg gaaaccccg gcatggctcg tgagcgtaac
 300
 gccaccacaga gcggcttctc cacggccgga gggcacttcc tggcgatgga agaccacccc
 360
 ggggctgccc atctgaagct ggggtgcgct ggcggcaaca gcgtcttcac actgggcaat
 420
 ggcaaagtcg ccggcgcgca actgcgcacc aacgccccac atgcaattga catcgtcttc
 480
 gctcaaacac gaagtgcccg gcgtgtactc attgtcgatg ggcaccgggg acccggcggc
 540
 cg
 542

<210> 490

<211> 180

<212> PRT

<213> Homo sapiens

<400> 490

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Ala | Phe | Gly | Val | Leu | Ser | Ala | Val | Val | Asp | Gly | Asp | Asp | Ser | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Lys | Pro | Leu | Leu | Asn | Gln | His | Gly | Cys | Tyr | Lys | Val | Arg | Phe | Pro | Phe |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Arg | Asp | Gln | Lys | Pro | Ser | Thr | Arg | Gly | Ser | Ala | Trp | Leu | Arg | Arg |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Val | Ser | Leu | Ser | Ala | Gly | Ser | Ser | His | Gly | Met | His | Phe | Pro | Leu | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Lys | Gly | Ser | Glu | Val | Leu | Val | Ser | Phe | Leu | Gly | Gly | Asp | Pro | Asp | Arg |
| 65 | | | | 70 | | | | | | 75 | | | | 80 | |
| Pro | Ile | Ile | Val | Gly | Cys | Val | Pro | Asn | Ser | Glu | Thr | Pro | Ser | Met | Val |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Val | Glu | Arg | Asn | Ala | Thr | Gln | Ser | Gly | Phe | Ser | Thr | Ala | Gly | Gly | His |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Phe | Leu | Ala | Met | Glu | Asp | His | Pro | Gly | Ala | Ala | His | Leu | Lys | Leu | Gly |
| | 115 | | | | | 120 | | | | | 125 | | | | |
| Ala | Pro | Gly | Gly | Asn | Ser | Val | Phe | Thr | Leu | Gly | Asn | Gly | Lys | Val | Ala |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gly | Ala | Gln | Leu | Arg | Thr | Asn | Ala | Pro | His | Ala | Ile | Asp | Ile | Val | Phe |
| 145 | | | | 150 | | | | | | 155 | | | | 160 | |
| Ala | Gln | Thr | Arg | Ser | Ala | Arg | Arg | Val | Leu | Ile | Val | Asp | Gly | His | Arg |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Gly | Pro | Gly | Gly | | | | | | | | | | | | |

180

<210> 491

<211> 825

<212> DNA

<213> Homo sapiens

<400> 491

```

nacgcgtcga ggcgacggtc ggcgccgtca tggcgactgt tctcgagggc acatgggaac
60
gcatcggtgc cggattccgg actgccttaa ccacagcctt ggaacgcacc gatgaatggg
120
tgggcgggccc tgacagcaag cccctcaacg aagtcgagac actgcgccgg tgcgccgatg
180
aactcatcgg cgggcccgtc ggcgcggttg ccgcgatgca cggaggggtca atcgaattgg
240
tcgacgtgtc ggtcgggtgac gaagagcgca gagtcgacgt caccatgaag ggagcatgcc
300
gaggttgccc ggcagccatc agaccctaca tcagcgcttg gaacatcaac tgagtctgcg
360
nattgcgcga gccggtcacc gtgcgggaaa tctgacacct actccgacag ctccacctcg
420
acgagcacct ccacgacgag gccaagccac tcgtagacgc attcctcctc ggcatccaat
480
tcttcccggg ccgcccgagc gacttcgtcg gcagtaacct ggtcgatgat ccctagcctg
540
gcggccatca tgccacgcag cgcattgaca gtacgaagcc aacgttgctg catcacaggg
600
ttcatggaga tacagccggt tcggtgcaac gtctccacat cagcacttaa ggactgagcg
660
tcttcccagc gcgccgcgac atcctcggcg tcatggtcga catggaattg cgcgtcagct
720
gagtcgtcgt cacgataggc gctgggcagg atcaatcgac gcacctcgtc gtcctcctgg
780
agtccagaaa actggctctc ccaaaaagcg aacgggtccc cctcc
825

```

<210> 492

<211> 58

<212> PRT

<213> Homo sapiens

<400> 492

```

Met Asn Gly Trp Ala Ala Leu Thr Ala Ser Pro Ser Thr Lys Ser Arg
 1             5             10            15
His Cys Ala Gly Ala Pro Met Asn Ser Ser Ala Gly Pro Ser Ala Arg
      20             25            30
Leu Pro Arg Cys Thr Glu Gly Gln Ser Asn Trp Ser Thr Cys Arg Ser
      35             40            45
Val Thr Lys Ser Ala Glu Ser Thr Ser Pro
 50             55

```

<210> 493

<211> 863

<212> DNA

<213> Homo sapiens

<400> 493

nacgcgttcc aacctcgtca aaacggctat cgcaggaaat gaccccaact ggggtcgcac
 60
 cctcgcggcg atcggatgtg ttcctgagaa tatagctccc ttcgatcccg accaggtgga
 120
 tgtgtccatc aatgacattc agatctgtaa ggccgggggt atcggggagg accgcaacct
 180
 cgtcgatatg aggccacgag aggttcacat cgatattgag ctgcatgcgg gtgatgccga
 240
 agctgcggta tggactaatg atctgacca ccaatacgtc gaagagaata gcgcgtatac
 300
 atcatgaccc ttgtctttga catccccctc aacgactccc agttctcggc tcagcggaaa
 360
 tctgagggtc tggtagaagc gctgccttgg atcaggcggt ttcagggccg cactgtcgtc
 420
 gtgaaatatg gcggcaacgc gatggttgat cccggtctgc agcaggcctt cgccgacgac
 480
 attgtgttta tggcctctgt ggggattcgc cctattgtcg tccacggtgg tggccctcag
 540
 atcaatgcca tgcttgctga atccgctacc ccggtggagt tccgtaatgg tttgcgggtg
 600
 acatctccgg aggtcatgga ggttgctcgg atggtgctcg tcgggcagggt gggccgacg
 660
 ctcgtaaac gaatcaacgc ctatgcgcg ctagcagctg gcatgtcagg cgaggacttt
 720
 ggctttttt cgccccggaa gtcgcgggta attgttgatg gcgagcaaat agacatgggt
 780
 ttagtgggag acatcgttga cgtcaacatc gatctcgta tctctatgct tgatcgcggt
 840
 cagattccgg tcattgcacc ggt
 863

<210> 494

<211> 186

<212> PRT

<213> Homo sapiens

<400> 494

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Thr | Leu | Ala | Leu | Asp | Ile | Pro | Leu | Asn | Asp | Ser | Gln | Phe | Ser | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gln | Arg | Lys | Ser | Glu | Val | Leu | Val | Glu | Ala | Leu | Pro | Trp | Ile | Arg | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Phe | Gln | Gly | Arg | Thr | Val | Val | Val | Lys | Tyr | Gly | Gly | Asn | Ala | Met | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asp | Pro | Gly | Leu | Gln | Gln | Ala | Phe | Ala | Asp | Asp | Ile | Val | Phe | Met | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Val | Gly | Ile | Arg | Pro | Ile | Val | Val | His | Gly | Gly | Gly | Pro | Gln | Ile |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Asn | Ala | Met | Leu | Ala | Glu | Ser | Ala | Thr | Pro | Val | Glu | Phe | Arg | Asn | Gly |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Leu | Arg | Val | Thr | Ser | Pro | Glu | Val | Met | Glu | Val | Val | Arg | Met | Val | Leu |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 100 | | 105 | | 110 | | | | | | | | | | |
| Val | Gly | Gln | Val | Gly | Arg | Gln | Leu | Val | Asn | Arg | Ile | Asn | Ala | Tyr | Ala |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Pro | Leu | Ala | Ala | Gly | Met | Ser | Gly | Glu | Asp | Phe | Gly | Leu | Phe | Ser | Ala |
| | 130 | | | | | | 135 | | | | | 140 | | | |
| Arg | Lys | Ser | Arg | Val | Ile | Val | Asp | Gly | Glu | Gln | Ile | Asp | Met | Gly | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |
| Val | Gly | Asp | Ile | Val | Asp | Val | Asn | Ile | Asp | Leu | Val | Ile | Ser | Met | Leu |
| | | | 165 | | | | | | 170 | | | | 175 | | |
| Asp | Arg | Gly | Gln | Ile | Pro | Val | Ile | Ala | Pro | | | | | | |
| | 180 | | | | | | 185 | | | | | | | | |

<210> 495

<211> 514

<212> DNA

<213> Homo sapiens

<400> 495

gcgcgcgaca ccggtgcccc gattagcgtg ccagtgggtg acgtcactaa gggtcacgtc
60
tggaatgtga caggtgacgt tcttaacgcc ngatccctcc acaatcgagg tgacnntgag
120
cgttggccga tccaccggga tccccgggcc ttcgatgacc ttgagcccga gaccgagatg
180
ctggagaccg gtattaaggt ccttgacttg ctgactcctt acgtcaaggg cggcaagatt
240
ggcctctttg gcggcgctgg tgtgggtaag acggtgctca ttcaggagat gatttacggt
300
atcgcccaca acttcggcgg tacttcgggt ttcgccggtg tcggtgagcg taccgcgag
360
ggtaacgacc tcatcaacga gatggacgag gccggtgtgc tcaaagacac cgccctggta
420
ttcggccaga tggacgagcc cccgggcacg cggtacgagc tgtcgcgctg gcagccctgc
480
ggcccatgcc tggccaactg ctgtgggacc ttgg
514

<210> 496

<211> 171

<212> PRT

<213> Homo sapiens

<400> 496

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Arg | Asp | Thr | Gly | Ala | Pro | Ile | Ser | Val | Pro | Val | Gly | Asp | Val | Thr |
| 1 | | | | 5 | | | | | 10 | | | | 15 | | |
| Lys | Gly | His | Val | Trp | Asn | Val | Thr | Gly | Asp | Val | Leu | Asn | Ala | Xaa | Ser |
| | | | 20 | | | | | 25 | | | | 30 | | | |
| Leu | His | Asn | Arg | Gly | Asp | Xaa | Glu | Arg | Trp | Pro | Ile | His | Arg | Asp | Pro |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Pro | Ala | Phe | Asp | Asp | Leu | Glu | Pro | Glu | Thr | Glu | Met | Leu | Glu | Thr | Gly |
| | 50 | | | | 55 | | | | 60 | | | | | | |
| Ile | Lys | Val | Leu | Asp | Leu | Leu | Thr | Pro | Tyr | Val | Lys | Gly | Gly | Lys | Ile |
| 65 | | | | 70 | | | | 75 | | | | | | 80 | |
| Gly | Leu | Phe | Gly | Gly | Ala | Gly | Val | Gly | Lys | Thr | Val | Leu | Ile | Gln | Glu |


```

      35              40              45
Cys Leu His Ala Ser Cys His Thr Pro Ala Val Ile Pro Ala Arg Ala
  50              55              60
Pro Ser Ala Glu Ala Glu Leu Cys Ser Ala Gln Ala Trp Asp Leu Pro
  65              70              75              80
Arg Gln Ala Pro Val Gly Gly Ala Ala Pro Gly Lys Glu Ala Thr Ala
      85              90              95
Ser Leu Asn Ile Leu Arg Cys Lys Val Val Ala Pro Arg Gly Val Ser
      100              105              110
Val Lys Thr Gly Thr Arg Met Ala Gly Pro Ala Arg Leu Phe Pro His
      115              120              125
Leu Ser Ala Ser Glu Ala Ser Leu Glu Asp Ser Gly Pro Arg Met Ser
      130              135              140
Pro Arg Thr Ser Gln Ser Ala Ser Ser Ser Tyr Phe Cys Cys Ser Leu
  145              150              155              160
Gly Pro Asp Leu Ala Lys Val Ser Gln Arg Gly Gly Pro Arg Ser Glu
      165              170              175
Leu Ser Ser Cys Arg Gly Pro Arg Asp Gly Leu Gly Cys Lys Leu
      180              185              190

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<210> 499

<211> 444

<212> DNA

<213> Homo sapiens

<400> 499

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acgcgtgaag ggtgggcagt gttgagctga gtgagccctc ctccctgcaa tgctggagcc
  60
ctgccttctg cctgaccctc tggttctcta agcagtctat acgtgagaag ccttttcttc
  120
aagtgaagc ttctgagctc actacgagag cactggagct ggaacctctc tgggttcaaa
  180
tcctcaactg gggggttgga ggaggttact tcacttctca aaacctcaat ttccttatct
  240
gcaaaatggg gtaataggag cccctcttca tcaatgcttg gaggaatgc ctggcacagt
  300
agggcagtta ccgtcatgga gaacagaaag gccccgagct atcctggatg tggtgagaat
  360
gggtcctgga tcctgcctgc tcggcctttt cattctcttc ttcacctaca ggctcccaca
  420
aagggcctct gaaaacacag ggtg
  444

```

<210> 500

<211> 105

<212> PRT

<213> Homo sapiens

<400> 500

```

Met Thr Val Thr Ala Leu Leu Cys Gln Ala Phe Pro Pro Ser Ile Asp
  1              5              10              15
Glu Glu Gly Leu Leu Leu Pro His Phe Ala Asp Lys Glu Ile Glu Val
      20              25              30
Leu Arg Ser Glu Val Thr Ser Ser Asn Pro Pro Val Glu Asp Leu Asn

```

| | | |
|---|-----|----|
| 35 | 40 | 45 |
| Pro Glu Arg Phe Gln Leu Gln Cys Ser Arg Ser Glu Leu Arg Ser Phe | | |
| 50 | 55 | 60 |
| His Leu Lys Lys Gly Leu Leu Thr Tyr Arg Leu Leu Arg Lys Pro Glu | | |
| 65 | 70 | 75 |
| Gly Gln Ala Glu Gly Arg Ala Pro Ala Leu Gln Gly Gly Gly Leu Thr | | |
| 85 | 90 | 95 |
| Gln Leu Asn Thr Ala His Pro Ser Arg | | |
| 100 | 105 | |

<210> 501
 <211> 800
 <212> DNA
 <213> Homo sapiens

<400> 501
 agatctgata cgagaagtgg ctgctcaggg aaatgactac tccatggctt tcttaactca
 60
 ggtactcctt attcaatgag aggcctgagg tgagaccgcg catgcggcgc gtggatcgca
 120
 tgggtgtagt gcacactagc aaggggctta ggtctccagc tgaggtcaga tgcacacttg
 180
 gaccttgtac tggggagtaa cacacatctc tgtgttcagc gaaccatcca ggagctgttt
 240
 gaagtttatt ctcccatgga tgatgctggc tccccggta aagctgagga gtttgtggtg
 300
 ctttctcagg aaccttctgt cacggaaacc attgcaccca aaattgcaag acctttcata
 360
 gaggccctca agagtattga gtatctggag gaggatgccc agaagtccgc acaggagggg
 420
 gtgctgggac cacacactga tgctctgtca tcagactctg agaacatgcc gtgtgatgaa
 480
 gaaccatccc aattagagga gctagctgac ttcattggagc agcttacacc aattgaaaaa
 540
 tatgctttaa attacctgga atcttgaggc agggcctgag agagcacgct gcgccgtact
 600
 tccagcagct gcggcagacc acggctccac gcctgctgca gttccctgag ctgaggctgg
 660
 tgcagttcga ctcaagtatg cggcagttgg gggcgtggcc cgtgcgggag ctgcactggc
 720
 cctggatgat gaggcgctct tgatgtgatt cgtttcccag ggaagttgga agcttttagct
 780
 atcttgcttc agaaactgaa
 800

<210> 502
 <211> 103
 <212> PRT
 <213> Homo sapiens

<400> 502
 Met Asp Asp Ala Gly Phe Pro Val Lys Ala Glu Glu Phe Val Val Leu
 1 5 10 15
 Ser Gln Glu Pro Ser Val Thr Glu Thr Ile Ala Pro Lys Ile Ala Arg

```

                20                25                30
Pro Phe Ile Glu Ala Leu Lys Ser Ile Glu Tyr Leu Glu Glu Asp Ala
      35                40                45
Gln Lys Ser Ala Gln Glu Gly Val Leu Gly Pro His Thr Asp Ala Leu
      50                55                60
Ser Ser Asp Ser Glu Asn Met Pro Cys Asp Glu Glu Pro Ser Gln Leu
65                70                75                80
Glu Glu Leu Ala Asp Phe Met Glu Gln Leu Thr Pro Ile Glu Lys Tyr
      85                90                95
Ala Leu Asn Tyr Leu Glu Ser
                100

```

<210> 503
 <211> 538
 <212> DNA
 <213> Homo sapiens

```

<400> 503
nnacgcggttg tcgtctctcc gatcattgat tttgttgat tctgcaatga tgtaaaggaa
60
gatgatgaca cggagaagtt taaagaagcc attgtgaaat ttcataaggct gtttgggatg
120
ccagaggaag agaaactcgt caactattac tcttcagcgt attggaaggg gaagggtccc
180
cgtcagggtt ggatgtacct cagcattaac cacctttgct tttattcttt tcttatggga
240
agggaaagcga aactgggtcat ccggtgggta gacatcactc agcttgagaa gaatgcccc
300
ctgcttctgc ctgatgtgat caaagtgagc acacggtcca gtgagcattt cttctctgta
360
ttcctcaaca tcaacgagac cttcaagtta atggagcagc ttgccaaact agccatgagg
420
caactcttag acaatgaggg atttgaacaa gatcgatccc tgcccaaact caaaaggaaa
480
tctcctaaaa aagtgtctgc tctaaaacgt gatcttgatg cctgggcccct tcacgcgt
538

```

<210> 504
 <211> 179
 <212> PRT
 <213> Homo sapiens

```

<400> 504
Xaa Arg Val Val Val Ser Pro Ile Ile Asp Phe Val Val Phe Cys Asn
1      5      10      15
Asp Val Lys Glu Asp Asp Asp Thr Glu Lys Phe Lys Glu Ala Ile Val
      20      25      30
Lys Phe His Arg Leu Phe Gly Met Pro Glu Glu Glu Lys Leu Val Asn
      35      40      45
Tyr Tyr Ser Cys Ser Tyr Trp Lys Gly Lys Val Pro Arg Gln Gly Trp
      50      55      60
Met Tyr Leu Ser Ile Asn His Leu Cys Phe Tyr Ser Phe Leu Met Gly
65      70      75      80
Arg Glu Ala Lys Leu Val Ile Arg Trp Val Asp Ile Thr Gln Leu Glu

```

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| | | | | 85 | | | | | 90 | | | | | 95 | | | | | |
| Lys | Asn | Ala | Pro | Leu | Leu | Leu | Pro | Asp | Val | Ile | Lys | Val | Ser | Thr | Arg | | | | |
| | | | 100 | | | | | 105 | | | | | | 110 | | | | | |
| Ser | Ser | Glu | His | Phe | Phe | Ser | Val | Phe | Leu | Asn | Ile | Asn | Glu | Thr | Phe | | | | |
| | | 115 | | | | | 120 | | | | | | 125 | | | | | | |
| Lys | Leu | Met | Glu | Gln | Leu | Ala | Asn | Ile | Ala | Met | Arg | Gln | Leu | Leu | Asp | | | | |
| | 130 | | | | | 135 | | | | 140 | | | | | | | | | |
| Asn | Glu | Gly | Phe | Glu | Gln | Asp | Arg | Ser | Leu | Pro | Lys | Leu | Lys | Arg | Lys | | | | |
| 145 | | | | | 150 | | | | 155 | | | | | | 160 | | | | |
| Ser | Pro | Lys | Lys | Val | Ser | Ala | Leu | Lys | Arg | Asp | Leu | Asp | Ala | Trp | Ala | | | | |
| | | | | 165 | | | | 170 | | | | | | 175 | | | | | |
| Leu | His | Ala | | | | | | | | | | | | | | | | | |

<210> 505
 <211> 381
 <212> DNA
 <213> Homo sapiens

<400> 505
 gtgcacgaca ccgaacggta cgaacgtatc tcccaggcac gtcgcgagga acagcaggcc
 60
 atgctcggct acgacngctc aagaacctgt cgcattgacct tgctcaccgg gcagctggac
 120
 gacccctcca cgactccttg cggacgctgc gacgtctgtg ctggcccgtg gtactcagtc
 180
 gaggtcgatc agtcagccgc tgtgagagcc gtccaatccc tcaaccgggt gggagttccg
 240
 gtggaaccac ggcgcgcctg gcccgaggg atggacgcc tccaggttgc gctcaagggt
 300
 cgcattcagtg ccgaggagat cgctgcagag ggccgcgtca tcgccagact ctccgatctg
 360
 gggtggggag gggcgctgcg c
 381

<210> 506
 <211> 127
 <212> PRT
 <213> Homo sapiens

<400> 506
 Val His Asp Thr Glu Arg Tyr Glu Arg Ile Ser Gln Ala Arg Arg Glu
 1 5 10 15
 Glu Gln Gln Ala Met Leu Gly Tyr Asp Xaa Ser Arg Thr Cys Arg Met
 20 25 30
 Thr Leu Leu Thr Gly Gln Leu Asp Asp Pro Ser Thr Thr Pro Cys Gly
 35 40 45
 Arg Cys Asp Val Cys Ala Gly Pro Trp Tyr Ser Val Glu Val Asp Gln
 50 55 60
 Ser Ala Ala Val Arg Ala Val Gln Ser Leu Asn Arg Val Gly Val Pro
 65 70 75 80
 Val Glu Pro Arg Ala Ala Trp Pro Ala Gly Met Asp Ala Leu Gln Val
 85 90 95
 Ala Leu Lys Gly Arg Ile Ser Ala Glu Glu Ile Ala Ala Glu Gly Arg

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 100 | | 105 | | 110 | | | | | | | | | |
| Val | Ile | Ala | Arg | Leu | Ser | Asp | Leu | Gly | Trp | Gly | Gly | Ala | Leu | Arg |
| | 115 | | | 120 | | | | | | | | 125 | | |

<210> 507
 <211> 499
 <212> DNA
 <213> Homo sapiens

<400> 507
 gccggcgtgt tcaacctcat ggtgtggggcc ttcattaccg acgtcatcga tgcccaggag
 60
 gtcagtgtccg gggagcgtga agacggtgtc atctatggcg tgaactcctt cgcccgcaaa
 120
 cttgcccagg ccattgccgg tggaatcggc ggagccatgc tgacgatgat cggctaccag
 180
 tcctcctccc aaggtggtgc cgttcagtcg gagtcgctcg tcaatcacct gtacacgctc
 240
 gccaccgcca tcccgcacgat ctgctgcctc ggcgctgccc tgctcatgct gggctaccg
 300
 ctcacccgcg acaaggtggt cgccaacgcc gacgagttgg ctgctcgcca cgcagtacag
 360
 gccgagcaaa actcctgacc cataacggag gcacatcatg gacacgctca tgcggatcac
 420
 cgaccacttg acaacctcgc cgggtatcca attgaaaatt gacaagcgat ggggtgcctc
 480
 cgtcacattt gtgacgcgt
 499

<210> 508
 <211> 125
 <212> PRT
 <213> Homo sapiens

<400> 508
 Ala Gly Val Phe Asn Leu Met Val Trp Ala Phe Ile Thr Asp Val Ile
 1 5 10 15
 Asp Ala Gln Glu Val Met Ser Gly Glu Arg Glu Asp Gly Val Ile Tyr
 20 25 30
 Gly Val Asn Ser Phe Ala Arg Lys Leu Ala Gln Ala Ile Ala Gly Gly
 35 40 45
 Ile Gly Gly Ala Met Leu Thr Met Ile Gly Tyr Gln Ser Ser Ser Gln
 50 55 60
 Gly Gly Ala Val Gln Ser Glu Ser Val Val Asn His Leu Tyr Thr Leu
 65 70 75 80
 Ala Thr Ala Ile Pro Thr Ile Cys Cys Leu Gly Ala Ala Leu Leu Met
 85 90 95
 Leu Gly Tyr Pro Leu Thr Arg Asp Lys Val Val Ala Asn Ala Asp Glu
 100 105 110
 Leu Ala Arg Arg His Ala Val Gln Ala Glu Gln Asn Ser
 115 120 125

<210> 509
 <211> 360

<212> DNA

<213> Homo sapiens

<400> 509

ttggccatgg atttggctcg caagttcagt cccaaagatg tcacgctcta tctaattggac
 60
 ttcgggacca atggtgtggc accactaggc caattaccac aggtggccga caccttgctt
 120
 ttggatcata cggagaagat tgccaagttt gtacgcatca tggagcggga gctcaaccgg
 180
 cgtaagaagc tcttgtccga ctacgggtgtt ggtacactag agctctaccg tcaggctagc
 240
 ggtcagcaag agccggccat cgtcatcctg ctggacagtt atgagtccat gaaggaagag
 300
 gcctatgaag cggagctctt cacgctcttg gtgcggatct cccgggaagg tctcagcatc
 360

<210> 510

<211> 120

<212> PRT

<213> Homo sapiens

<400> 510

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ala | Met | Asp | Leu | Ala | Arg | Lys | Phe | Ser | Pro | Lys | Asp | Val | Thr | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Tyr | Leu | Met | Asp | Phe | Gly | Thr | Asn | Gly | Val | Ala | Pro | Leu | Gly | Gln | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Pro | Gln | Val | Ala | Asp | Thr | Leu | Leu | Leu | Asp | His | Thr | Glu | Lys | Ile | Ala |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Lys | Phe | Val | Arg | Ile | Met | Glu | Arg | Glu | Leu | Asn | Arg | Arg | Lys | Lys | Leu |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Leu | Ser | Asp | Tyr | Gly | Val | Gly | Thr | Leu | Glu | Leu | Tyr | Arg | Gln | Ala | Ser |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Gly | Gln | Gln | Glu | Pro | Ala | Ile | Val | Ile | Leu | Leu | Asp | Ser | Tyr | Glu | Ser |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Met | Lys | Glu | Glu | Ala | Tyr | Glu | Ala | Glu | Leu | Phe | Thr | Leu | Leu | Val | Arg |
| | | | | 100 | | | | 105 | | | | | | 110 | |
| Ile | Ser | Arg | Glu | Gly | Leu | Ser | Ile | | | | | | | | |
| | | | 115 | | | | 120 | | | | | | | | |

<210> 511

<211> 361

<212> DNA

<213> Homo sapiens

<400> 511

ntcgcgaacc gcggtatgc ggtgctccag cccaatttcc gcggatcggg cggttatggc
 60
 actgcgttcg gcgatgccgg catcggccag atcgggcgca agatgcagga cgatctcgac
 120
 gacgggatgg actggctggt caaggagggc atcgtcgaca agggccgggt gtgcatcgtc
 180
 ggggcctcct atggcggcta tgccgcgatg tggggcgaga tccgcaatcc cgaacgctat
 240

cgctgcgcgg cgagcctggc ggggggttgcc gattaaggcc atgctcaaat ataaccggcg
 300
 ctatctcgac aaggaggcgg gcaagcgctg gccgccccgn tcaaccggcg aaccgaatt
 360
 c
 361

<210> 512
 <211> 91
 <212> PRT
 <213> Homo sapiens

<400> 512
 Xaa Ala Asn Arg Gly Tyr Ala Val Leu Gln Pro Asn Phe Arg Gly Ser
 1 5 10 15
 Gly Gly Tyr Gly Thr Ala Phe Gly Asp Ala Gly Ile Gly Gln Ile Gly
 20 25 30
 Arg Lys Met Gln Asp Asp Leu Asp Asp Gly Met Asp Trp Leu Val Lys
 35 40 45
 Glu Gly Ile Val Asp Lys Gly Arg Val Cys Ile Val Gly Ala Ser Tyr
 50 55 60
 Gly Gly Tyr Ala Ala Met Trp Gly Ala Ile Arg Asn Pro Glu Arg Tyr
 65 70 75 80
 Arg Cys Ala Ala Ser Leu Ala Gly Val Ala Asp
 85 90

<210> 513
 <211> 369
 <212> DNA
 <213> Homo sapiens

<400> 513
 nnatgcagac tagaagatgg catgacgggt ttggctggcg gtttcgggct atgcggcatt
 60
 ccagaaaatc tgattcaaga gatcaaacga cgccagactt gtgatttgac catagtgtca
 120
 aataactgtg gtgtagatgg ttttggttta ggggttttgc tagaagataa gcaagtacgc
 180
 aaaatggtgt cttcttatgt ggggtgaaaat gcactgtttg agaagcaatt attacaaggt
 240
 gagttggaag tcgagctcac tcctcaaggc actcttgccg aaaaactacg cgctggcggc
 300
 gcgggaattc ctgccttttt cacagcaacg ggtgtaggta cacctattgg tgagggtaaa
 360
 gacacgcgt
 369

<210> 514
 <211> 123
 <212> PRT
 <213> Homo sapiens

<400> 514
 Xaa Cys Arg Leu Glu Asp Gly Met Thr Val Leu Ala Gly Gly Phe Gly

```

      1             5             10             15
Leu Cys Gly Ile Pro Glu Asn Leu Ile Gln Glu Ile Lys Arg Arg Gln
      20             25             30
Thr Cys Asp Leu Thr Ile Val Ser Asn Asn Cys Gly Val Asp Gly Phe
      35             40             45
Gly Leu Gly Val Leu Leu Glu Asp Lys Gln Val Arg Lys Met Val Ser
      50             55             60
Ser Tyr Val Gly Glu Asn Ala Leu Phe Glu Lys Gln Leu Leu Gln Gly
65             70             75             80
Glu Leu Glu Val Glu Leu Thr Pro Gln Gly Thr Leu Ala Glu Lys Leu
      85             90             95
Arg Ala Gly Gly Ala Gly Ile Pro Ala Phe Phe Thr Ala Thr Gly Val
      100            105            110
Gly Thr Pro Ile Gly Glu Gly Lys Asp Thr Arg
      115            120

```

<210> 515

<211> 387

<212> DNA

<213> Homo sapiens

<400> 515

```

gcgtgggacg agaaggccgc cggcaactgc gcgatcgact acgggttcca ccagatcctc
60
tccgacgtgc aggactcgtc gctgaccgcg atggacgagc tgatcaccca gggcgtgaca
120
tccttcaagc tcttcgtggc ctacaagggc gtcttctctc cggacgacgg gcagatcctg
180
cgggcgttcc agaagggcgc cgacaacggc gcgatgatga tgatgcacgc cgagaacggc
240
gcgatcatcg acgtgctcgt gcagcaggcg ctcgaggccg ggaagaccac cccgtactac
300
cacggcatca gccggccgtg gcaggccgag gaggaggcca cccaccgcgc gatcatgac
360
gccgacctga ccggtgcgcc gttgtac
387

```

<210> 516

<211> 129

<212> PRT

<213> Homo sapiens

<400> 516

```

Ala Trp Asp Glu Lys Ala Ala Gly Asn Cys Ala Ile Asp Tyr Gly Phe
      1             5             10             15
His Gln Ile Leu Ser Asp Val Gln Asp Ser Ser Leu Thr Ala Met Asp
      20             25             30
Glu Leu Ile Thr Glu Gly Val Thr Ser Phe Lys Leu Phe Val Ala Tyr
      35             40             45
Lys Gly Val Phe Leu Ser Asp Asp Gly Gln Ile Leu Arg Ala Phe Gln
      50             55             60
Lys Gly Ala Asp Asn Gly Ala Met Met Met Met His Ala Glu Asn Gly
65             70             75             80
Ala Ile Ile Asp Val Leu Val Gln Gln Ala Leu Glu Ala Gly Lys Thr

```

```

      85              90              95
Thr Pro Tyr Tyr His Gly Ile Ser Arg Pro Trp Gln Ala Glu Glu Glu
      100              105              110
Ala Thr His Arg Ala Ile Met Ile Ala Asp Leu Thr Gly Ala Pro Leu
      115              120              125
Tyr

```

<210> 517
 <211> 377
 <212> DNA
 <213> Homo sapiens

```

<400> 517
acgcgtgaag ggctggtggg caggccttgc gccccctctg gggacagctc tcctccaccc
60
agacccttc gggccaacag tggggagggg ctgccgtctg agccactgtt ccgacagggg
120
attcgcgagt tccgggggag ctggggactg agctgcgggc ctctgggct ggggctcttc
180
tccgaggttg gaggcagctt tagaaacttg agaccctag ctggagaggg cagaaggggt
240
ccctgagctt ccccaggaga aggggggcca atttgagct tgcttttcac ctgagatgag
300
gaatgggggt ggccaggccg agagcccagt ggggcatccc cagcacccat gaacatgcta
360
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<210> 518
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 <212> PRT
 <213> Homo sapiens

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Ser Pro Gly Glu Ala Gln Gly Pro Leu Leu Pro Ser Pro Ala Arg Gly
      35              40              45
Leu Lys Phe Leu Lys Leu Pro Pro Thr Ser Glu Lys Ser Pro Ser Pro
      50              55              60
Gly Gly Pro Gln Leu Ser Pro Gln Leu Pro Arg Asn Ser Arg Ile Pro
      65              70              75              80
Cys Arg Asn Ser Gly Ser Asp Gly Ser Pro Ser Pro Leu Leu Ala Arg
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 <211> 311

<212> DNA

<213> Homo sapiens

<400> 519

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<210> 520

<211> 92

<212> PRT

<213> Homo sapiens

<400> 520

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Arg | Gly | Lys | Tyr | Gln | Ile | Leu | Lys | Asn | Leu | Asn | Tyr | Tyr | Lys | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Thr | Phe | Ser | Ala | Thr | Leu | Lys | Asn | Val | Arg | Ile | Ser | Lys | Glu | Ile | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asn | Phe | Leu | Gly | Lys | His | Asp | Leu | Pro | Lys | Leu | Thr | Leu | Glu | Lys | Asn |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Arg | Tyr | Thr | Ser | Val | Thr | Thr | Glu | Val | Glu | Lys | Val | Val | Asn | Ile | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Pro | Asn | Leu | Glu | Phe | Met | Ile | Glu | Phe | Phe | Glu | Ile | Tyr | Cys | Glu | Tyr |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ile | Leu | Cys | Leu | Cys | Ser | Ala | Val | Pro | Glu | Leu | Lys | | | | |
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<210> 521

<211> 352

<212> DNA

<213> Homo sapiens

<400> 521

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 240
 aacgccggca tcgtgccggg ggtgcgcgaa tacgggtcgc tgggctgctc cggcgacttg
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<210> 522
 <211> 117
 <212> PRT
 <213> Homo sapiens

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 20 25 30
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 35 40 45
 Val Ile Arg Ala Leu Met Leu Leu Arg Leu Ser Thr Leu Cys Thr Gly
 50 55 60
 Arg Thr Gly Val Arg Pro Val Val Val Glu Thr Tyr Ala Lys Ala Leu
 65 70 75 80
 Asn Ala Gly Ile Val Pro Gly Val Arg Glu Tyr Gly Ser Leu Gly Cys
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 Ser Gly Asp Leu Ala Pro Leu Ala His Cys Ala Leu Ala Leu Leu Gly
 100 105 110
 Glu Gly Glu Val Arg
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 <212> DNA
 <213> Homo sapiens

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 120
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 <211> 193
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Phe Pro Leu Asp Phe Gln Val Ile Leu Ala Gly Ser Gln Arg Phe Arg
 50 55 60
 Glu Lys Phe Pro Pro Val Phe Phe Ser Ser Phe Arg Asn Thr Val Gln
 65 70 75 80
 Ser Ser Asn Asn Lys Phe Arg Arg Asn Phe Thr Met Thr Tyr His Leu
 85 90 95
 Ser Pro Gly Asn Tyr Val Val Val Ala Gln Thr Arg Arg Lys Ser Ala
 100 105 110
 Glu Phe Leu Leu Arg Ile Phe Leu Lys Met Pro Asp Ser Asp Arg His
 115 120 125
 Leu Ser Ser His Phe Asn Leu Arg Met Lys Gly Ser Pro Ser Glu His
 130 135 140
 Gly Ser Gln Gln Ser Ile Phe Asn Arg Tyr Ala Gln Gln Arg Leu Asp
 145 150 155 160
 Ile Asp Ala Thr Gln Leu Gln Gly Leu Leu Asn Gln Glu Leu Leu Thr
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 Gly Pro Pro Gly Asp Met Phe Ser Leu Asp Gly Ala Ala Ala Trp Trp
 180 185 190
 Leu

<210> 525
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 <212> DNA
 <213> Homo sapiens

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 420

aggtggaaaa gaaacttgga ctttctcaag gcggtagaca cgaaccgagc aagcgtcggc
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 1101

<210> 526

<211> 290

<212> PRT

<213> Homo sapiens

<400> 526

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ala | Arg | Phe | Pro | Lys | Ala | Asp | Leu | Ala | Ala | Ala | Gly | Val | Met | Leu |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Leu | Cys | His | Phe | Phe | Thr | Asp | Gln | Phe | Gln | Phe | Ala | Asp | Gly | Lys | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Asp | Gln | Ile | Leu | Asp | Trp | Gln | Tyr | Gly | Val | Thr | Gln | Ala | Phe | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| His | Thr | Glu | Glu | Glu | Val | Glu | Val | Asp | Ser | His | Ala | Tyr | Ser | His | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Trp | Lys | Arg | Asn | Leu | Asp | Phe | Leu | Lys | Ala | Val | Asp | Thr | Asn | Arg | Ala |
| 65 | | | 70 | | | | | | | 75 | | | | 80 | |
| Ser | Val | Gly | Gln | Asp | Ser | Leu | Glu | Pro | Arg | Ser | Phe | Thr | Asp | Leu | Leu |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Leu | Asp | Asp | Gly | Gln | Asp | Asn | Asn | Thr | Gln | Ile | Glu | Glu | Asp | Thr | Asp |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| His | Asn | Tyr | Tyr | Ile | Ser | Arg | Ile | Tyr | Gly | Pro | Ser | Asp | Ser | Ala | Ser |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Arg | Asp | Leu | Trp | Val | Asn | Ile | Asp | Gln | Met | Glu | Lys | Asp | Lys | Val | Lys |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ile | His | Gly | Ile | Leu | Ser | Asn | Thr | His | Arg | Gln | Ala | Ala | Arg | Val | Asn |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |
| Leu | Ser | Phe | Asp | Phe | Pro | Phe | Tyr | Gly | His | Phe | Leu | Arg | Glu | Ile | Thr |
| | | | 165 | | | | | 170 | | | | | | 175 | |
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[illegible]

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<213> Homo sapiens
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960

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<211> 886

<212> PRT

<213> Homo sapiens

<400> 528

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| 1 | | | 5 | | | | | 10 | | | | | 15 | | |
| Glu | Glu | Glu | Cys | Glu | Gly | Pro | Lys | Leu | Pro | Thr | Glu | Arg | Pro | Cys | Phe |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| Leu | Glu | Ala | Cys | Asp | Glu | Ser | Pro | Ala | Ser | Arg | Glu | Leu | Asp | Ile | Pro |
| | 35 | | | | | 40 | | | | | 45 | | | | |
| Leu | Pro | Glu | Asp | Ser | Glu | Thr | Ala | Tyr | Asp | Trp | Glu | Tyr | Ala | Gly | Phe |

| | | |
|---------------------|-------------------------|-------------------------|
| 50 | 55 | 60 |
| Thr Pro Cys Thr Ala | Thr Cys Leu Gly Gly His | Gln Glu Ala Ile Ala |
| 65 | 70 | 75 |
| Val Cys Leu His Ile | Gln Thr Gln Gln Thr Val | Asn Asp Ser Leu Cys |
| 85 | 90 | 95 |
| Asp Met Val His Arg | Pro Pro Ala Met Ser Gln | Ala Cys Asn Thr Glu |
| 100 | 105 | 110 |
| Pro Cys Pro Pro Arg | Trp His Val Gly Ser Trp | Gly Pro Cys Ser Ala |
| 115 | 120 | 125 |
| Thr Cys Gly Val Gly | Ile Gln Thr Arg Asp Val | Tyr Cys Leu His Pro |
| 130 | 135 | 140 |
| Gly Glu Thr Pro Ala | Pro Pro Glu Glu Cys Arg | Asp Glu Lys Pro His |
| 145 | 150 | 155 |
| Ala Leu Gln Ala Cys | Asn Gln Phe Asp Cys Pro | Pro Gly Trp His Ile |
| 165 | 170 | 175 |
| Glu Glu Trp Gln Gln | Cys Ser Arg Thr Cys Gly | Gly Gly Thr Gln Asn |
| 180 | 185 | 190 |
| Arg Arg Val Thr Cys | Arg Gln Leu Leu Thr Asp | Gly Ser Phe Leu Asn |
| 195 | 200 | 205 |
| Leu Ser Asp Glu Leu | Cys Gln Gly Pro Lys Ala | Ser Ser His Lys Ser |
| 210 | 215 | 220 |
| Cys Ala Arg Thr Asp | Cys Pro Pro His Leu Ala | Val Gly Asp Trp Ser |
| 225 | 230 | 235 |
| Lys Cys Ser Val Ser | Cys Gly Val Gly Ile Gln | Arg Arg Lys Gln Val |
| 245 | 250 | 255 |
| Cys Gln Arg Leu Ala | Ala Lys Gly Arg Arg Ile | Pro Leu Ser Glu Met |
| 260 | 265 | 270 |
| Met Cys Arg Asp Leu | Pro Gly Leu Pro Leu Val | Arg Ser Cys Gln Met |
| 275 | 280 | 285 |
| Pro Glu Cys Ser Lys | Ile Lys Ser Glu Met Lys | Thr Lys Leu Gly Glu |
| 290 | 295 | 300 |
| Gln Gly Pro Gln Ile | Leu Ser Val Gln Arg Val | Tyr Ile Gln Thr Arg |
| 305 | 310 | 315 |
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| Arg Leu Gly Ile Thr | Lys Ser Gly Ser Leu Lys | Ile His Gly Leu Ala |
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| Ala Pro Asp Ile Gly | Val Tyr Arg Cys Ile Ala | Gly Ser Ala Gln Glu |
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| Thr Val Val Leu Lys | Leu Ile Gly Thr Asp | Asn Arg Leu Ile Ala Arg |
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| Pro Ala Leu Arg Glu | Pro Met Arg Glu Tyr | Pro Gly Met Asp His Ser |
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| Glu Ala Asn Ser Leu | Gly Val Thr Trp His Lys | Met Arg Gln Met Trp |
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| Asn Asn Lys Asn Asp | Leu Tyr Leu Asp Asp | Asp His Ile Ser Asn Gln |
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| Pro Phe Leu Arg Ala | Leu Leu Gly His Cys | Ser Asn Ser Ala Gly Ser |
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| Thr Asn Ser Trp Glu | Leu Lys Asn Lys Gln | Phe Glu Ala Ala Val Lys |

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| Gln | Ala | Thr | Asn | Thr | Arg | Thr | Asn | Ser | Asn | Asp | Pro | Thr | Gly | Glu | Pro | |
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<213> Homo sapiens

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| Ser | Gln | Glu | Val | Gly | Val | Val | His | Val | His | His | Pro | Val | Phe | Cys | Asp | | |
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| Cys | Ser | Gly | Ser | Asn | Gly | Ala | Cys | Gly | Ser | Ala | Leu | Ile | Asp | Ser | Arg |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
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 accaacattg acaacgtcct caacaaagat cacctgcgtt ggctacactt tcttttggag
 240
 ggtcgcctgg agccaaacgt ggcctgatt gtccagggt actgttcgcc tggcaagctg
 300
 taccgcaagc ttgaggagct atatgcccct tctgc
 335

<210> 534
 <211> 103
 <212> PRT
 <213> Homo sapiens

<400> 534
 Met Pro Arg Asp Ile Asp Phe Ser Glu Ala Asn Arg Ser Ile Ile Asp
 1 5 10 15
 Asn Met Ala Thr Ala Ser Ile Pro Leu Phe Arg Thr His Lys Asn Trp
 20 25 30
 Glu Thr Trp Ser Ser Gln Val Arg His Phe Ile Ser Leu Leu His Pro
 35 40 45
 Lys Val Thr Leu Thr Asn Ile Asp Asn Val Leu Asn Lys Asp His Leu
 50 55 60
 Arg Trp Leu His Phe Leu Leu Glu Gly Arg Leu Glu Pro Asn Val Arg
 65 70 75 80
 Leu Ile Val Gln Gly Tyr Cys Ser Pro Gly Lys Leu Tyr Arg Lys Leu
 85 90 95
 Glu Glu Leu Tyr Ala Pro Ser
 100

<210> 535
 <211> 402
 <212> DNA
 <213> Homo sapiens

<400> 535
 acgcgtctct acagccggac taagcacagg ctacagccccg gtcgccatgc gcccaggctc
 60
 gggtatcagc cgaggaatcc acggcgaaat gaccagtagc ggccctaata caactatgct
 120
 gccgagcagc agacgtcgag gtcgggtcat gaggatgccg acggccaccg cgaccgggta
 180
 taccacaat gcaggaacaa ggctgatagc tagggctgac cacagagcca ggccgcctgc
 240
 cgaggaaacg cccccacct ggtgactgcc agtatcagca ccgcgcagct caacgacgtc
 300
 aacagtctcg ggattgacca accgccacgt atgcagggcc atgtggggga gaatcaccac
 360
 caacgccaat gctgtcaccg agcctcgggc taggccgccg gc
 402

<210> 536
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 536
 Met Ala Leu His Thr Trp Arg Leu Val Asn Pro Glu Thr Val Asp Val
 1 5 10 15
 Val Glu Leu Arg Gly Ala Asp Thr Gly Ser His Gln Val Gly Gly Val
 20 25 30
 Ser Ser Ala Gly Gly Leu Ala Leu Trp Ser Ala Leu Ala Ile Ser Leu

```

          35          40          45
Val Pro Ala Leu Trp Val Tyr Pro Val Ala Val Ala Val Gly Ile Leu
          50          55          60
Met Thr Arg Pro Arg Arg Leu Leu Leu Gly Ser Ile Val Val Leu Gly
65          70          75          80
Pro Leu Leu Val Ile Ser Pro Trp Ile Pro Arg Leu Ile Thr Glu Pro
          85          90          95
Gly Arg Met Ala Thr Gly Ala Glu Pro Val Leu Ser Pro Ala Val Glu
          100          105          110
Thr Arg

```

<210> 537
 <211> 404
 <212> DNA
 <213> Homo sapiens

```

<400> 537
gtgcacatcg gcggcaccga cttcgacaaa caactctcgc tggctggcat gatgccgctg
60
ttcggctacg gcagccgcat gaagagcggc gcctacatgc ccaccagcca ccacatgaac
120
ctggcgacct ggcacacccat caactcgggtg tactcgcaaa aatcccagct ggccctgggc
180
agcatgcgct acgacatcga agacaccggc ggcacgcacc gcctgttcaa gctgatcgaa
240
cagcgtgctg ggcactggct tgccatggaa gtggaagaaa ccaagatcca gctcacccat
300
caagacagcc gccacgtgcc gctggaccgc atcgaagcgg gcctgagcgt agacctgagc
360
cgggcgctgt tcgaatcgtc catcgacaac ctgctcgaac gcgt
404

```

<210> 538
 <211> 118
 <212> PRT
 <213> Homo sapiens

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<400> 538
Met Met Pro Leu Phe Gly Tyr Gly Ser Arg Met Lys Ser Gly Ala Tyr
1          5          10          15
Met Pro Thr Ser His His Met Asn Leu Ala Thr Trp His Thr Ile Asn
          20          25          30
Ser Val Tyr Ser Gln Lys Ser Gln Leu Ala Leu Gly Ser Met Arg Tyr
          35          40          45
Asp Ile Glu Asp Thr Gly Gly Ile Asp Arg Leu Phe Lys Leu Ile Glu
          50          55          60
Gln Arg Ala Gly His Trp Leu Ala Met Glu Val Glu Glu Thr Lys Ile
65          70          75          80
Gln Leu Thr His Gln Asp Ser Arg His Val Pro Leu Asp Arg Ile Glu
          85          90          95
Ala Gly Leu Ser Val Asp Leu Ser Arg Ala Leu Phe Glu Ser Ser Ile
          100          105          110
Asp Asn Leu Leu Glu Arg

```

115

<210> 539

<211> 534

<212> DNA

<213> Homo sapiens

<400> 539

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nnacgcgtga aaaagaagaa aatgaaggaa agcgaggctg acagcgaggt gaagcatcaa
60
ccaattttca taaaagaaaag attgaagctt tttgaaatac tgaagaaaga ccatcagctc
120
ttacttgcca tttatggaaa aaagggggat acaagcaaca tcatcacagt aagagtggct
180
gatgggcaaa cagtgcgaagg ggaagtctgg aaaacaacgc cttaccaagt ggctgctgaa
240
attagtcagg aactggctga aagcacggta atagccaaag tcaatgggtga actgtggggac
300
ctggaccgcc cattggaagg ggactcttct ctagagctgc ttacatttga taatgaggaa
360
gctcaagctg tgagtattttt aaaaccagac agccaaactt tgggtagtta tgttgtaaac
420
tacattatat aagaggccac atattgaatt cacgaatgtt gagttttttg ggggtttcta
480
agatttaaaa tttgattatt gatgtttaat aaatatttgc ctcatgaatg ttaa
534

```

<210> 540

<211> 143

<212> PRT

<213> Homo sapiens

<400> 540

```

Xaa Arg Val Lys Lys Lys Lys Met Lys Glu Ser Glu Ala Asp Ser Glu
 1             5             10             15
Val Lys His Gln Pro Ile Phe Ile Lys Glu Arg Leu Lys Leu Phe Glu
      20             25             30
Ile Leu Lys Lys Asp His Gln Leu Leu Leu Ala Ile Tyr Gly Lys Lys
      35             40             45
Gly Asp Thr Ser Asn Ile Ile Thr Val Arg Val Ala Asp Gly Gln Thr
      50             55             60
Val Gln Gly Glu Val Trp Lys Thr Thr Pro Tyr Gln Val Ala Ala Glu
      65             70             75             80
Ile Ser Gln Glu Leu Ala Glu Ser Thr Val Ile Ala Lys Val Asn Gly
      85             90             95
Glu Leu Trp Asp Leu Asp Arg Pro Leu Glu Gly Asp Ser Ser Leu Glu
      100            105            110
Leu Leu Thr Phe Asp Asn Glu Glu Ala Gln Ala Val Ser Ile Leu Lys
      115            120            125
Pro Asp Ser Gln Thr Leu Gly Ser Tyr Val Val Asn Tyr Ile Ile
      130            135            140

```

<210> 541

<211> 551

<212> DNA

<213> Homo sapiens

<400> 541

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ggtagcgagc tgcgcgtgtg gtatgcgggc ttctatgcca agaagatgga caagcccatg
60
ctgaagcagg ccggctcttg cgtccacgct gcaggcacc cagaaaacag cgcccccg
120
gagtcggagc ccagccagtg ggcgtgtaaa gtgtgttctg ccaccttctt ggagctgcag
180
ctctcaatg gtaaggagga cgtgtgggga gcccagttg taaaactcct gtgtcgattt
240
ctctctgact tacgctgtca cctgtctgcg gctgtcgggg gtgtcccaga ctttgtctctg
300
tctgccccat tgccccacaa tgtagtgcgc agaaccaagg ctttctcagg gtttaaagct
360
tctgggcagt cccgcttccc acccccgacc cctgcaggcc tcaactctca ctctctctgg
420
ttgggaagtt gcatttcagc tgggcgcctt gactctggag cactggcagg ggccaggggc
480
caggagccag ccgtggcatg tgttgtgcac tcttgccctt gttgtctcta cttgacagcc
540
ccctcacgcg t
551

```

<210> 542

<211> 168

<212> PRT

<213> Homo sapiens

<400> 542

```

Met Asp Lys Pro Met Leu Lys Gln Ala Gly Ser Gly Val His Ala Ala
1      5      10      15
Gly Thr Pro Glu Asn Ser Ala Pro Val Glu Ser Glu Pro Ser Gln Trp
20     25     30
Ala Cys Lys Val Cys Ser Ala Thr Phe Leu Glu Leu Gln Leu Leu Asn
35     40     45
Gly Lys Glu Asp Val Trp Gly Ala Pro Val Val Lys Leu Leu Cys Arg
50     55     60
Phe Leu Ser Asp Leu Arg Cys His Leu Ser Ala Ala Val Gly Gly Val
65     70     75     80
Pro Asp Phe Val Leu Ser Ala Pro Leu Pro His Asn Val Val Ala Arg
85     90     95
Thr Lys Ala Phe Ser Gly Phe Lys Ala Ser Gly Gln Ser Arg Phe Pro
100    105    110
Pro Pro Thr Pro Ala Gly Leu Thr Pro His Ser Ser Trp Leu Gly Ser
115    120    125
Cys Ile Ser Ala Gly Arg Leu Asp Ser Gly Ala Leu Ala Gly Ala Arg
130    135    140
Gly Gln Glu Pro Ala Val Ala Cys Val Val His Ser Cys Leu Cys Cys
145    150    155    160
Leu Tyr Leu Thr Ala Pro Ser Arg
165

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<210> 543
 <211> 349
 <212> DNA
 <213> Homo sapiens

<400> 543
 nnaaagccgg acatgaatac ccgcattgct ggcaaaactg tcctgaccat cattctggcc
 60
 gggggcaaag gcagccgcct ggccccgatg accgatcagg tggccaaacc agccgtgccg
 120
 tttatgggga cgtaccgcct gattgacttt tcgctgtcca acattgtcca cagcggcttg
 180
 caggacgtct ggatcattga gcaaaacctg ccccatagct taaacgagca cctggctggg
 240
 gggcgctcct gggatctgga ccgcacccgc ggtggcctga aggtcatgcc gcccttttcc
 300
 ggccctgccg atgaggacgg tggcttttcc gaaggcaacg cacacgcgt
 349

<210> 544
 <211> 116
 <212> PRT
 <213> Homo sapiens

<400> 544
 Xaa Lys Pro Asp Met Asn Thr Arg Ile Ala Gly Lys Thr Val Leu Thr
 1 5 10 15
 Ile Ile Leu Ala Gly Gly Lys Gly Ser Arg Leu Ala Pro Met Thr Asp
 20 25 30
 Gln Val Ala Lys Pro Ala Val Pro Phe Met Gly Thr Tyr Arg Leu Ile
 35 40 45
 Asp Phe Ser Leu Ser Asn Ile Val His Ser Gly Leu Gln Asp Val Trp
 50 55 60
 Ile Ile Glu Gln Asn Leu Pro His Ser Leu Asn Glu His Leu Ala Gly
 65 70 75 80
 Gly Arg Ser Trp Asp Leu Asp Arg Thr Arg Gly Gly Leu Lys Val Met
 85 90 95
 Pro Pro Phe Ser Gly Pro Ala Asp Glu Asp Gly Gly Phe Ser Glu Gly
 100 105 110
 Asn Ala His Ala
 115

<210> 545
 <211> 390
 <212> DNA
 <213> Homo sapiens

<400> 545
 catgatgcaa aaacagacat gcttattttca aaatataaaa gtgaaaaaga tcgttttagca
 60
 caagaaattg ttggtgtcat cacaggttct gcaatgccgg gtgggttcagc aaaccgtatc
 120
 ccaataaag caggctcaaa tccagaaggt tctattgcaa cgcgttttat tgcagaaaca
 180

atgtataacg aactcaaaac agtggattta actattcaaa atgctggcgg tgtacgcgca
 240
 gatattttac cggggaatgt aacctttaac gatgcttata ctttcttacc tttcgggaat
 300
 acgttatata cctataaaat ggaaagttca ttagtgaaac aagtgcttga agatgcaatg
 360
 ctatttgctt tgggtcccc ccccccccc
 390

<210> 546

<211> 130

<212> PRT

<213> Homo sapiens

<400> 546

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Asp | Ala | Lys | Thr | Asp | Met | Leu | Ile | Ser | Lys | Tyr | Lys | Ser | Glu | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asp | Arg | Leu | Ala | Gln | Glu | Ile | Val | Gly | Val | Ile | Thr | Gly | Ser | Ala | Met |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Pro | Gly | Gly | Ser | Ala | Asn | Arg | Ile | Pro | Asn | Lys | Ala | Gly | Ser | Asn | Pro |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Glu | Gly | Ser | Ile | Ala | Thr | Arg | Phe | Ile | Ala | Glu | Thr | Met | Tyr | Asn | Glu |
| | | | 50 | | | 55 | | | | 60 | | | | | |
| Leu | Lys | Thr | Val | Asp | Leu | Thr | Ile | Gln | Asn | Ala | Gly | Gly | Val | Arg | Ala |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Asp | Ile | Leu | Pro | Gly | Asn | Val | Thr | Phe | Asn | Asp | Ala | Tyr | Thr | Phe | Leu |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Pro | Phe | Gly | Asn | Thr | Leu | Tyr | Thr | Tyr | Lys | Met | Glu | Ser | Ser | Leu | Val |
| | | | 100 | | | | 105 | | | | | | 110 | | |
| Lys | Gln | Val | Leu | Glu | Asp | Ala | Met | Leu | Phe | Ala | Leu | Gly | Pro | Pro | Pro |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Pro | Pro | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 130 |

<210> 547

<211> 306

<212> DNA

<213> Homo sapiens

<400> 547

aagcttggtt ttctgatttt tattcaaata tctatcatgg atgaagcatg cagtttcaga
 60
 atcagttcag tgttgacaac atatcaagat attctgcagt caatctcaat gtatgttcat
 120
 gaagcctcca acatattttt tgggatacca tctttgtcag gcattgtgct aggcaactgtc
 180
 cctgcagtga ataagaaaga caggatttct gtatttatgg ggcttagtac caagttgttc
 240
 tcaaaacttc atgtttgtgt atacaaatca gctgaggcct tcactaaact cnnnnnccnn
 300
 nncenn
 306

<210> 548

<211> 90
 <212> PRT
 <213> Homo sapiens

<400> 548
 Met Asp Glu Ala Cys Ser Phe Arg Ile Ser Ser Val Leu Thr Thr Tyr
 1 5 10 15
 Gln Asp Ile Leu Gln Ser Ile Ser Met Tyr Val His Glu Ala Ser Asn
 20 25 30
 Ile Phe Cys Gly Ile Pro Ser Leu Ser Gly Ile Val Leu Gly Thr Val
 35 40 45
 Pro Ala Val Asn Lys Lys Asp Arg Ile Ser Val Phe Met Gly Leu Ser
 50 55 60
 Thr Lys Leu Phe Ser Asn Phe His Val Cys Val Tyr Lys Ser Ala Glu
 65 70 75 80
 Ala Phe Thr Lys Leu Xaa Xaa Xaa Xaa Xaa
 85 90

<210> 549
 <211> 780
 <212> DNA
 <213> Homo sapiens

<400> 549
 nnacgcgtac ttccaacacc tatgctccag tatggaggac gggtaaagtc tcttggtta
 60
 gttttaatca tacacatatt gtctgtaagt atgaagagaa aggcataatca gaaatatttc
 120
 aattcagcga tttgaaatgt ttactttctg tttattgaaa atttttgttc tttttcacca
 180
 tggtattttt ttctcctcgt gtagaatcgg acagtagcaa caccgagcca tggagtatgg
 240
 gacatgcgag ggaaacaatt ccacacagga gttgaaatca aaatgtgggc tatcgcttgt
 300
 tttgccacac agaggcagtg cagagaagaa atattgaagg gtttcacaga ccagctgcgt
 360
 aagatttcta aggatgcagg gatgcccatc cagggccagc catgcttctg caaatatgca
 420
 cagggggcag acagcgtaga gcccatgttc cggcatctca agaacacata ttctggccta
 480
 cagcttatta tcgtcatcct gccggggaag acaccagtgt atgcggaagt gaaacgtgta
 540
 ggagacacac ttttgggtat ggctacacaa tgtgttcaag tcaagaatgt aataaaaaca
 600
 tctcctcaaa ctctgtcaaa cttgtgccta aagataaatg ttaaactcgg agggatcaat
 660
 aatattcttg tacctcatca aagaccttct gtgttccagc aaccagtgat ctttttggga
 720
 gccgatgtca ctcatccacc tgctggtgat ggaaagaagc cttctattgc tgctgttgta
 780

<210> 550
 <211> 192
 <212> PRT

<213> Homo sapiens

<400> 550

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Asn Arg Thr Val Ala Thr Pro Ser His Gly Val Trp Asp Met Arg Gly
 1           5           10           15
Lys Gln Phe His Thr Gly Val Glu Ile Lys Met Trp Ala Ile Ala Cys
           20           25           30
Phe Ala Thr Gln Arg Gln Cys Arg Glu Glu Ile Leu Lys Gly Phe Thr
           35           40           45
Asp Gln Leu Arg Lys Ile Ser Lys Asp Ala Gly Met Pro Ile Gln Gly
           50           55           60
Gln Pro Cys Phe Cys Lys Tyr Ala Gln Gly Ala Asp Ser Val Glu Pro
           65           70           75           80
Met Phe Arg His Leu Lys Asn Thr Tyr Ser Gly Leu Gln Leu Ile Ile
           85           90           95
Val Ile Leu Pro Gly Lys Thr Pro Val Tyr Ala Glu Val Lys Arg Val
           100          105          110
Gly Asp Thr Leu Leu Gly Met Ala Thr Gln Cys Val Gln Val Lys Asn
           115          120          125
Val Ile Lys Thr Ser Pro Gln Thr Leu Ser Asn Leu Cys Leu Lys Ile
           130          135          140
Asn Val Lys Leu Gly Gly Ile Asn Asn Ile Leu Val Pro His Gln Arg
           145          150          155          160
Pro Ser Val Phe Gln Gln Pro Val Ile Phe Leu Gly Ala Asp Val Thr
           165          170          175
His Pro Pro Ala Gly Asp Gly Lys Lys Pro Ser Ile Ala Ala Val Val
           180          185          190

```

<210> 551

<211> 291

<212> DNA

<213> Homo sapiens

<400> 551

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nnggatccgg attatggggc tattgctaac aggtcaacgg ccatcaaggt gctcggtgcc
60
gtggcaccgc cagccccgga gcctactcgc gagccaccga cgaactccgc tccttccgag
120
gaaccgtcct cgtcgtcaat cgcaccgggc cgcgcggccc cgacgactgc agtaccacg
180
actagttcgt cgtcggggccg ctgaccgatg cgcccatcgg cgggctcatc tggtgggcgc
240
tagcgggggc ttgatgtcc ccataccaca gcgtccgcta aattgccnc c
291

```

<210> 552

<211> 67

<212> PRT

<213> Homo sapiens

<400> 552

```

Xaa Asp Pro Asp Tyr Gly Ala Ile Ala Asn Arg Ser Thr Ala Ile Lys
 1           5           10           15
Val Leu Val Ala Val Ala Pro Pro Ala Pro Glu Pro Thr Arg Glu Pro

```

```

          20          25          30
Pro Thr Asn Ser Ala Pro Ser Glu Glu Pro Ser Ser Ser Ser Ile Ala
          35          40          45
Pro Val Pro Pro Ala Pro Thr Thr Ala Val Pro Thr Thr Ser Ser Ser
          50          55          60
Ser Gly Arg
65

```

<210> 553
 <211> 471
 <212> DNA
 <213> Homo sapiens

```

<400> 553
ctagccgatg taggattagt aggttttccg agcgtgggta aatctacctt actctcaata
60
gtatctaaag ccaaaccgaa aattggtgca tatcatttca ctacaattaa acctaactta
120
ggtgttggtt ccacaaaaga tcaacgtagt tttgttatgg cagatttacc aggtttaatt
180
gaaggtgcat ctgatggcgt tggattagga catcaatttt taagacatgt agagagaaca
240
aaagttattg ttcacatgat tgatatgagc ggttctgaag gtagagaacc tattgaagat
300
tataaagtca ttaatcaaga attagctgcg tacgagcaac gtttagaaga tagacctcaa
360
atcgtagtag ctaacaagat ggattttacct gaatcacaag ataattttaa cttgttttaa
420
gaagaaattg gcgaagatgt gccagttatt ccagtttcaa caataacgcg t
471

```

<210> 554
 <211> 157
 <212> PRT
 <213> Homo sapiens

```

<400> 554
Leu Ala Asp Val Gly Leu Val Gly Phe Pro Ser Val Gly Lys Ser Thr
1          5          10          15
Leu Leu Ser Ile Val Ser Lys Ala Lys Pro Lys Ile Gly Ala Tyr His
          20          25          30
Phe Thr Thr Ile Lys Pro Asn Leu Gly Val Val Ser Thr Lys Asp Gln
          35          40          45
Arg Ser Phe Val Met Ala Asp Leu Pro Gly Leu Ile Glu Gly Ala Ser
          50          55          60
Asp Gly Val Gly Leu Gly His Gln Phe Leu Arg His Val Glu Arg Thr
65          70          75          80
Lys Val Ile Val His Met Ile Asp Met Ser Gly Ser Glu Gly Arg Glu
          85          90          95
Pro Ile Glu Asp Tyr Lys Val Ile Asn Gln Glu Leu Ala Ala Tyr Glu
          100          105          110
Gln Arg Leu Glu Asp Arg Pro Gln Ile Val Val Ala Asn Lys Met Asp
          115          120          125
Leu Pro Glu Ser Gln Asp Asn Leu Asn Leu Phe Lys Glu Glu Ile Gly

```

130 135 140
 Glu Asp Val Pro Val Ile Pro Val Ser Thr Ile Thr Arg
 145 150 155

<210> 555
 <211> 300
 <212> DNA
 <213> Homo sapiens

<400> 555
 tctagagatt gagaacaatt atggatacag aaatggttga ttccgtcaaa tatattcgag
 60
 attcggaatc atgtgaggct cgcgtgctgg agatcttagc cagaaggccg tccatgatgg
 120
 tgcagatctt gcgtggcgac ggcttaatta acgaagacca gagattagtc agattatggc
 180
 ttaataaagt acctagaatt gttcgcctgc ttctccggct tagtggtgtc gtcgctgcgg
 240
 caataggtgc ccgtgcggta tgggcggcgg cttccggtaa tcccgatctt gttcacgcgt
 300

<210> 556
 <211> 93
 <212> PRT
 <213> Homo sapiens

<400> 556
 Met Asp Thr Glu Met Val Asp Ser Val Lys Tyr Ile Arg Asp Ser Glu
 1 5 10 15
 Ser Cys Glu Ala Arg Val Leu Glu Ile Leu Ala Arg Arg Pro Ser Met
 20 25 30
 Met Val Gln Ile Leu Arg Gly Asp Gly Leu Ile Asn Glu Asp Gln Arg
 35 40 45
 Leu Val Arg Leu Trp Leu Asn Lys Val Pro Arg Ile Val Arg Leu Leu
 50 55 60
 Leu Arg Leu Ser Val Phe Val Ala Ala Ala Ile Gly Ala Arg Ala Val
 65 70 75 80
 Trp Ala Ala Ala Ser Gly Asn Pro Asp Leu Val His Ala
 85 90

<210> 557
 <211> 678
 <212> DNA
 <213> Homo sapiens

<400> 557
 atcttcccgg tttatgagga gaatgcgctg cgtgtcgagt ttttcggcga cgaaattgag
 60
 gccctcacga cgatgcaccc gctcaccggg gaggtcatca gcgaggacga gcaggtctac
 120
 gtgttcccgg ctaccacta tgctgccggc ccggaacgta tggagcgggc catagcgtcc
 180
 atccagcagg agctcgagga gcgcctggcc gttctagagc gtgatgggaa actggttgag
 240

gcccaacggt tacgtatgcg tactacctac gatatcgaga tgatgcagca ggtcgggtgcc
 300
 tgtgctggca tcgaaaacta ttcgcggcac atcgacggac gcgctcccgg ctacgccccg
 360
 aactgtctgc ttgactactt tccggaagat tttgtgctcg tcattgatga atcccacgtg
 420
 accgtcccgc agattggcgg gatgtatgag ggggacatga gccgcaagcg gacattggta
 480
 gaacatgggt tccgactgcc cagcgcgatg gacaaccgtc ctctcaaatt cgacgagttc
 540
 acccagcgga tcggccagac tgtctacctg tccgccacgc ccggttcgta cgagaccgaa
 600
 cgagctcacg gcgtcgtcga acaaatcatt cgtccgacag gtctgggtgga tccggagatt
 660
 atcgtcaagc ctacgcgt
 678

<210> 558

<211> 226

<212> PRT

<213> Homo sapiens

<400> 558

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Phe | Pro | Val | Tyr | Glu | Glu | Asn | Ala | Leu | Arg | Val | Glu | Phe | Phe | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asp | Glu | Ile | Glu | Ala | Leu | Thr | Thr | Met | His | Pro | Leu | Thr | Gly | Glu | Val |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ile | Ser | Glu | Asp | Glu | Gln | Val | Tyr | Val | Phe | Pro | Ala | Thr | His | Tyr | Val |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Ala | Gly | Pro | Glu | Arg | Met | Glu | Arg | Ala | Ile | Ala | Ser | Ile | Gln | Gln | Glu |
| | | | 50 | | | 55 | | | | | 60 | | | | |
| Leu | Glu | Glu | Arg | Leu | Ala | Val | Leu | Glu | Arg | Asp | Gly | Lys | Leu | Leu | Glu |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Ala | Gln | Arg | Leu | Arg | Met | Arg | Thr | Thr | Tyr | Asp | Ile | Glu | Met | Met | Gln |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Gln | Val | Gly | Ala | Cys | Ala | Gly | Ile | Glu | Asn | Tyr | Ser | Arg | His | Ile | Asp |
| | | | 100 | | | | | | 105 | | | | 110 | | |
| Gly | Arg | Ala | Pro | Gly | Ser | Ala | Pro | Asn | Cys | Leu | Leu | Asp | Tyr | Phe | Pro |
| | | | 115 | | | | | 120 | | | | 125 | | | |
| Glu | Asp | Phe | Val | Leu | Val | Ile | Asp | Glu | Ser | His | Val | Thr | Val | Pro | Gln |
| | | | 130 | | | 135 | | | | | 140 | | | | |
| Ile | Gly | Gly | Met | Tyr | Glu | Gly | Asp | Met | Ser | Arg | Lys | Arg | Thr | Leu | Val |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | |
| Glu | His | Gly | Phe | Arg | Leu | Pro | Ser | Ala | Met | Asp | Asn | Arg | Pro | Leu | Lys |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Phe | Asp | Glu | Phe | Thr | Gln | Arg | Ile | Gly | Gln | Thr | Val | Tyr | Leu | Ser | Ala |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Thr | Pro | Gly | Ser | Tyr | Glu | Thr | Glu | Arg | Ala | His | Gly | Val | Val | Glu | Gln |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ile | Ile | Arg | Pro | Thr | Gly | Leu | Val | Asp | Pro | Glu | Ile | Ile | Val | Lys | Pro |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Thr | Arg | | | | | | | | | | | | | | |
| 225 | | | | | | | | | | | | | | | |

<210> 559
 <211> 335
 <212> DNA
 <213> Homo sapiens

<400> 559
 ggatcctatg gagctcaagt tcaagaaaag aaactgtaaa catggaggtt ttgtgataaa
 60
 tggaatgcag tcagagggaa ggaactgccn gcttaaagtg tcctatgctg cgctttccag
 120
 agcaatacag tacacagtgg agggcgctac catggagtct ctgggtgaaa gttaggatgg
 180
 tatggtggca ccagccaaac ttctcagggt tcataggcag acagcagctc tggagtggaa
 240
 ctaaagtgtg tccaggagct gaagccctta atcagctagg gctcacacag agtcaaggta
 300
 gggccaacaaa cattcagttc gggaccatat ctaga
 335

<210> 560
 <211> 92
 <212> PRT
 <213> Homo sapiens

<400> 560
 Met Glu Cys Ser Gln Arg Glu Gly Thr Ala Xaa Leu Lys Cys Pro Met
 1 5 10 15
 Leu Arg Phe Pro Glu Gln Tyr Ser Thr Gln Trp Arg Ala Leu Pro Trp
 20 25 30
 Ser Leu Trp Val Lys Val Arg Met Val Trp Trp His Gln Pro Asn Phe
 35 40 45
 Ser Gly Phe Ile Gly Arg Gln Gln Leu Trp Ser Gly Thr Lys Val Tyr
 50 55 60
 Pro Gly Ala Glu Ala Leu Asn Gln Leu Gly Leu Thr Gln Ser Gln Gly
 65 70 75 80
 Arg Val Lys Asn Ile Gln Ser Gly Thr Ile Ser Arg
 85 90

<210> 561
 <211> 477
 <212> DNA
 <213> Homo sapiens

<400> 561
 ngcgcgcccc ctctctccgat ggcggcggag atccagccca agcctctgac ccgcaagccg
 60
 atcctgctgc agcggatgga ggggtcccag gaggtggtga atatggccgt gatcgtgccc
 120
 aaagaggagg gcgtcatcag cgtctccgag gacaggacag ttcgtgtttg gttaaagaga
 180
 gacagtggac agtattggcc aagcgtatac catgcaatgc cttgagttaa tattgtcaga
 240
 agattataac aagatgactc ctgtgaaaaa ctatcaagcg catcagagca gagtgcagat
 300

gacacctgttt gtcctggagc tggagtgggt gctgagcaca ggacaggaca agcaatttgc
 360
 ctggcactgc tctgagagtg ggcagcgcct gggaggttat cggaccagtg ctgtggcctc
 420
 aggcctgcaa tttgatgttg aaaccggca tgtgtttatc ggtgaccact caggcca
 477

<210> 562
 <211> 74
 <212> PRT
 <213> Homo sapiens

<400> 562
 Xaa Ala Pro Pro Pro Pro Met Ala Ala Glu Ile Gln Pro Lys Pro Leu
 1 5 10 15
 Thr Arg Lys Pro Ile Leu Leu Gln Arg Met Glu Gly Ser Gln Glu Val
 20 25 30
 Val Asn Met Ala Val Ile Val Pro Lys Glu Glu Gly Val Ile Ser Val
 35 40 45
 Ser Glu Asp Arg Thr Val Arg Val Trp Leu Lys Arg Asp Ser Gly Gln
 50 55 60
 Tyr Trp Pro Ser Val Tyr His Ala Met Pro
 65 70

<210> 563
 <211> 403
 <212> DNA
 <213> Homo sapiens

<400> 563
 ccatggcaga cagggagctg agcggcctgc ggaccaggt gcaccagagc atggtgcccc
 60
 tgctcctaca cctgaaggac caatgcccaa ctgtcgccac gggcaatgcc caccacaaga
 120
 aaaggaaggg aaaaggcctc aaccttggcc agggctggaa cccacaggag gccagggtac
 180
 ggggcagacg gatggcagca gcaactgctg agagttgggg gagctccac ggggcagcaa
 240
 gtggcgggca gagggctctg ccatctgcac tggtttctgt gaccacagtt ggctgcccc
 300
 ctccccact gcaccactga cgaagcgaga ccctgcctca aaaaaaaaaa caaaaacaaa
 360
 aacaaaaaca aaactcaaac ttcacactgg agatctgtgc aat
 403

<210> 564
 <211> 105
 <212> PRT
 <213> Homo sapiens

<400> 564
 Met Ala Asp Arg Glu Leu Ser Gly Leu Arg Thr Gln Val His Gln Ser
 1 5 10 15
 Met Val Pro Leu Leu Leu His Leu Lys Asp Gln Cys Pro Thr Val Ala

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 20 | | | | | | 25 | | | | | 30 | | | |
| Thr | Gly | Asn | Ala | His | Pro | Lys | Lys | Arg | Lys | Gly | Lys | Gly | Leu | Asn | Leu |
| | 35 | | | | | | 40 | | | | | 45 | | | |
| Gly | Gln | Gly | Trp | Asn | Pro | Gln | Glu | Ala | Arg | Val | Arg | Gly | Arg | Arg | Met |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Ala | Ala | Leu | Pro | Glu | Ser | Trp | Gly | Ser | Ser | His | Gly | Ala | Ala | Ser |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Gly | Gly | Gln | Arg | Val | Trp | Pro | Ser | Ala | Leu | Val | Ser | Val | Thr | Thr | Val |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Gly | Leu | Pro | Ala | Pro | Pro | Leu | His | His | | | | | | | |
| | 100 | | | | | | 105 | | | | | | | | |

<210> 565

<211> 311

<212> DNA

<213> Homo sapiens

<400> 565

ncctctccat ggagcagccc catcttcact cttcacctgg ggccaggcct tccacagcag
60

ccaccaccca gcgaccacag agaggctgcg cggaggacac aggagagagg gagcccacgg
120

gcacgatctc caccggcttt cccagctccc tgggtcagcc ccacgggacc tctctctctc
180

tctccacat ctccaagcca gccttgcata tagtaagagc tgtgatcagg atggaaagag
240

gcttggggcg cacagacctg gacaatgtcc cagtgagggc tggaggtgct agaagggcac
300

aggaggcccc n

311

<210> 566

<211> 101

<212> PRT

<213> Homo sapiens

<400> 566

Met Glu Gln Pro His Leu His Ser Ser Pro Gly Ala Arg Pro Ser Thr
1 5 10 15

Ala Ala Thr Thr Gln Arg Pro Gln Arg Gly Cys Ala Glu Asp Thr Gly
20 25 30

Glu Arg Glu Pro Thr Gly Thr Ile Ser Thr Gly Phe Pro Ser Ser Leu
35 40 45

Gly Gln Pro His Gly Thr Ser Pro Pro Leu Ser His Ile Ser Lys Pro
50 55 60

Ala Leu His Ile Val Arg Ala Val Ile Arg Met Glu Arg Gly Leu Gly
65 70 75 80

Arg Thr Asp Leu Asp Asn Val Pro Val Arg Ala Gly Gly Ala Arg Arg
85 90 95

Ala Gln Glu Ala Pro
100

<210> 567

<211> 929

<212> DNA

<213> Homo sapiens

<400> 567

atcacatcgg tcgctgaacc ccgacgagcc tcaccttgtc gaaatattca tccttgagat
 60
 cagcccacgt gccgtcgacc tctacctcgg tgagggtcgc gggcgggtac caacagccga
 120
 cctcgtcctc ggctccactc atggcggcaa gttccgctgc cagtccgggg atcgtcgggg
 180
 catggggcat gatgagcagg ttatccacat cgtcgtcgat ttctccgatg cgccgacgca
 240
 cggatcagt gccgcagtaa tagagggtc gcataaattc gaccggacaa tccagttgga
 300
 ggcagtccca ggtctggcgg gtgcgtaggg catcggagac cagagcatgt ccaacattgc
 360
 gcagtcctaa acgcgtgccg acctcacggg cctgacggcg cccacgctcg gtgagcggac
 420
 gctcccgatc cccgcccga gcatgggatg cgggctgtgc atgtctcatg aggaacagag
 480
 tgtgcatgga tccatcggtg cacttcgcgg tcgccgcggg tctacgatgt tggcatgccg
 540
 ttgacggatt tgggcattga tgaggcgcgt acctaccgcc cgaacgtccc tgaaccgat
 600
 ggtttcgact ctttttgggc cgagaccctc gatgagtatt ccggcgttcc ccaagatctg
 660
 acggcgggtgc ctttcgataa ccgtcaggct ctgatagata cctgggattt gtcgtgggtg
 720
 gggatcaca actctcgggt gagcgggtga ttacatgcc cagccgctgt gaacggccca
 780
 ttcccccttg tcatcgagta cctcgggtac tcgagttcgc gtggtgtgcc gattggatca
 840
 gtcttcgctg ctgctggcta tgcacatata gtcgtcgatc cacgtgggtca ggggtggggc
 900
 cacccaacct tgacggaaaa ctgtccgga
 929

<210> 568

<211> 71

<212> PRT

<213> Homo sapiens

<400> 568

Met Pro Leu Thr Asp Leu Gly Ile Asp Glu Ala Arg Thr Tyr Arg Pro
 1 5 10 15
 Asn Val Pro Glu Pro Asp Gly Phe Asp Ser Phe Trp Ala Glu Thr Leu
 20 25 30
 Asp Glu Tyr Ser Gly Val Pro Gln Asp Leu Thr Ala Val Pro Phe Asp
 35 40 45
 Asn Arg Gln Ala Leu Ile Asp Thr Trp Asp Leu Ser Trp Val Gly Tyr
 50 55 60
 His Asn Ser Arg Val Ser Gly
 65 70

<210> 569
 <211> 371
 <212> DNA
 <213> Homo sapiens

<400> 569
 ncgcaaaactt caacggtgcc atctgccata ttccagggat gccagatttg gatggaaaat
 60
 accatatcac tctcgattca gaattcgtag ttgatttagt ggctttaac aaaacgctac
 120
 ctgtcgatta cttaatgggc gaaggaacgg aacttgtgta ttcaaactg gaagaactac
 180
 ctgaatgccc atattatcca aaagatcaaa agccaatcgt gattgggaaa aacacaaaac
 240
 tcaaggaaca accaacagcc gttgctctct tctcgatgt tgataaacgg ccagagatta
 300
 aatcaaaaat cttagaccgc tatgataatg atattgaaat ccgtacttgg ggcggtactt
 360
 cccatgtcta n
 371

<210> 570
 <211> 111
 <212> PRT
 <213> Homo sapiens

<400> 570
 Met Pro Asp Leu Asp Gly Lys Tyr His Ile Thr Leu Asp Ser Glu Phe
 1 5 10 15
 Val Leu Asp Leu Val Ala Phe Asn Lys Thr Leu Pro Val Asp Tyr Leu
 20 25 30
 Met Val Glu Gly Thr Glu Leu Val Tyr Ser Asn Met Glu Glu Leu Pro
 35 40 45
 Glu Cys Pro Tyr Tyr Pro Lys Asp Gln Lys Pro Ile Val Ile Gly Lys
 50 55 60
 Asn Thr Lys Leu Lys Glu Gln Pro Thr Ala Val Ala Leu Phe Ser Asp
 65 70 75 80
 Val Asp Lys Arg Pro Glu Ile Lys Ser Lys Ile Leu Asp Arg Tyr Asp
 85 90 95
 Asn Asp Ile Glu Ile Arg Thr Trp Gly Gly Thr Ser His Val Xaa
 100 105 110

<210> 571
 <211> 407
 <212> DNA
 <213> Homo sapiens

<400> 571
 nacgcgtatc ttcgctgggc cacaccagac gtggcattaa acgacgtcac aagaacgaca
 60
 ccgggccttg acgggcccac gcacgaagag gccaaagacac tgaccgagac tactgtttcc
 120
 gttccacact ccttcgccga cctcggcgtc cgagaagata tctgccaggc gctggaaggg
 180

gtgggaattg tctccccgtt cccgatccag gccatgtcga tccccgattgc cgtcgagggc
 240
 acggatctta ttgggcaggc gcgtactggc actggcaaaa cactcgcctt cggcatcacc
 300
 atcttgcagc gcataccct gcccggtgac gaagggtggg aagaactcac caccaaaggc
 360
 aagcccccaa gcaactcgtga tgtgcccta cccgggagct aggtcgg
 407

<210> 572
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 572
 Leu Thr Glu Thr Thr Val Ser Val Pro Thr Ser Phe Ala Asp Leu Gly
 1 5 10 15
 Val Arg Glu Asp Ile Cys Gln Ala Leu Glu Gly Val Gly Ile Val Ser
 20 25 30
 Pro Phe Pro Ile Gln Ala Met Ser Ile Pro Ile Ala Val Glu Gly Thr
 35 40 45
 Asp Leu Ile Gly Gln Ala Arg Thr Gly Thr Gly Lys Thr Leu Ala Phe
 50 55 60
 Gly Ile Thr Ile Leu Gln Arg Ile Thr Leu Pro Gly Asp Glu Gly Trp
 65 70 75 80
 Glu Glu Leu Thr Thr Lys Gly Lys Pro Pro Ser Thr Arg Asp Val Pro
 85 90 95
 Leu Pro Gly Ser
 100

<210> 573
 <211> 393
 <212> DNA
 <213> Homo sapiens

<400> 573
 acgcgtctac cgtaggatcc atgaccttcc gcaagaccga ccaccacaag aacgccattg
 60
 actacgaggt cgccggacta atgtggctcg ctgctgcccg gccagatggg gccggcatcg
 120
 tcgaggtgct cgaccacggc aagggatggc tcaccgaacc cgaattgtcc actgggcacc
 180
 ccacccgcga ggcagccgag gactttggcc gccgactggc tcacacccac gcagccgggg
 240
 cctcacacct gggggctgca cctgacgggt ttgttcccga cgatgggtat atcggccgtg
 300
 ctcccctgcc actgccgtcc gaaccaatct cctcctgggg agagtgttac gctcagtgcc
 360
 gcatcgaacc atatatggac agtctcgacg ctg
 393

<210> 574
 <211> 124
 <212> PRT

<213> Homo sapiens

<400> 574

```

Met Thr Phe Arg Lys Thr Asp His His Lys Asn Ala Ile Asp Tyr Glu
 1           5           10           15
Val Ala Gly Leu Met Trp Leu Ala Ala Arg Pro Asp Gly Ala Gly
      20           25           30
Ile Val Glu Val Leu Asp His Gly Lys Gly Trp Leu Thr Glu Pro Glu
      35           40           45
Leu Ser Thr Gly His Pro Thr Arg Glu Ala Ala Glu Asp Phe Gly Arg
      50           55           60
Arg Leu Ala His Thr His Ala Ala Gly Ala Ser His Leu Gly Ala Ala
65           70           75           80
Pro Asp Gly Phe Val Pro Asp Asp Gly Tyr Ile Gly Arg Ala Pro Leu
      85           90           95
Pro Leu Pro Ser Glu Pro Ile Ser Ser Trp Gly Glu Phe Tyr Ala Gln
      100          105          110
Cys Arg Ile Glu Pro Tyr Met Asp Ser Leu Asp Ala
      115           120

```

<210> 575

<211> 372

<212> DNA

<213> Homo sapiens

<400> 575

```

nntatccatg cagacatggg accagggtct ctgagggcag gaagcaaagt gggtgagggg
60
gatgggacaa gatgccttgg tgctaaggcc tctggagctg gagctggtta tagggatgat
120
accaggcacc ctgagtcact cgcacctcac aatggggccg cttctgggag ccagtgggct
180
tatggggctg gcaatgtgct gggttatgag gatggatcag aacttccagg gcctcagggg
240
actgggggtca gaacagccta tggagaaagg tcaaggggcc ttgggcctag gagtacaggg
300
ccaggggggtg aggcaggctt tagagatggt tcaggaggcc tccaaggaat gggatcagca
360
gatgggcccc gt
372

```

<210> 576

<211> 124

<212> PRT

<213> Homo sapiens

<400> 576

```

Xaa Ile His Ala Asp Met Gly Pro Gly Ser Leu Arg Ala Gly Ser Lys
 1           5           10           15
Val Gly Glu Gly Asp Gly Thr Arg Cys Pro Gly Ala Lys Ala Ser Gly
      20           25           30
Ala Gly Ala Gly Tyr Arg Asp Asp Thr Arg His Pro Glu Ser Leu Ala
      35           40           45
Pro His Asn Gly Ala Ala Ser Gly Ser Gln Trp Ala Tyr Gly Ala Gly

```

```

      50              55              60
Asn Val Leu Gly Tyr Glu Asp Gly Ser Glu Leu Pro Gly Pro Gln Gly
65              70              75              80
Thr Gly Val Arg Thr Ala Tyr Gly Glu Arg Ser Arg Gly Leu Gly Pro
      85              90              95
Arg Ser Thr Gly Pro Gly Gly Glu Ala Gly Phe Arg Asp Gly Ser Gly
      100              105              110
Gly Leu Gln Gly Met Gly Ser Ala Asp Gly Pro Gly
      115              120

```

<210> 577

<211> 432

<212> DNA

<213> Homo sapiens

<400> 577

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nagcgcaatg tcatgatgtc ggatttgtca atgtcggatt tctcatccca gccatcaccc
60
ccgcagcgcc gggcgcggat gaccagcggc cagcgccgtg aacagctcat cagcgtggcc
120
cgtcgcctct tcgcagacaa tggcatggca gggacctccg tcgaggagat cgccgctacc
180
gcgggagtct ccaaaccctg catctacgag catttcgggt ccaaggatgg gctgtacgcc
240
gtcgtcgtag accgcgaggt acgccaccta caagattccc tcaacgccgc catgaccgcg
300
ccaaagcaag gcccgaaacg caccctggag tcagcggtag tggccctgct ggactacatc
360
gacgaccgtc cagacggttt tcggatcatc tcgcgagact cctcggtcgg ttcagccacc
420
ggttcgtacg cg
432

```

<210> 578

<211> 118

<212> PRT

<213> Homo sapiens

<400> 578

```

Met Thr Ser Gly Gln Arg Arg Glu Gln Leu Ile Ser Val Ala Arg Arg
1              5              10              15
Leu Phe Ala Asp Asn Gly Met Ala Gly Thr Ser Val Glu Glu Ile Ala
      20              25              30
Ala Thr Ala Gly Val Ser Lys Pro Val Ile Tyr Glu His Phe Gly Ser
      35              40              45
Lys Asp Gly Leu Tyr Ala Val Val Val Asp Arg Glu Val Arg His Leu
      50              55              60
Gln Asp Ser Leu Asn Ala Ala Met Thr Arg Pro Lys Gln Gly Pro Lys
65              70              75              80
Arg Thr Leu Glu Ser Ala Val Leu Ala Leu Leu Asp Tyr Ile Asp Asp
      85              90              95
Arg Pro Asp Gly Phe Arg Ile Ile Ser Arg Asp Ser Ser Val Gly Ser
      100              105              110
Ala Thr Gly Ser Tyr Ala

```

115

<210> 579
 <211> 320
 <212> DNA
 <213> Homo sapiens

<400> 579
 ggcccaaac actccgacct cagctgggcc agcatgctgg gcaccgtgct gctgctggcc
 60
 ctgctcccag ggatcaccac cttaccacgc gggccacctg ctcccccggt ccccgaggcg
 120
 cccggccctt ggctgcgcag acccctcttc agcctgaagc tgtccgacac agaggacgtc
 180
 ttctctgcc gcgcggggcc gctcgaggtc ccggccgaca gccgcgtgtt cgtgcaggcg
 240
 gccttggtcc gtccctcccc gcgctggggc ctggccctgc accgctgctc agtgacgccg
 300
 tcctcacgcc cggccccggg
 320

<210> 580
 <211> 95
 <212> PRT
 <213> Homo sapiens

<400> 580
 Met Leu Gly Thr Val Leu Leu Leu Ala Leu Leu Pro Gly Ile Thr Thr
 1 5 10 15
 Leu Pro Ser Gly Pro Pro Ala Pro Pro Phe Pro Ala Ala Pro Gly Pro
 20 25 30
 Trp Leu Arg Arg Pro Leu Phe Ser Leu Lys Leu Ser Asp Thr Glu Asp
 35 40 45
 Val Phe Pro Arg Arg Ala Gly Pro Leu Glu Val Pro Ala Asp Ser Arg
 50 55 60
 Val Phe Val Gln Ala Ala Leu Ala Arg Pro Ser Pro Arg Trp Gly Leu
 65 70 75 80
 Ala Leu His Arg Cys Ser Val Thr Pro Ser Ser Arg Pro Ala Pro
 85 90 95

<210> 581
 <211> 419
 <212> DNA
 <213> Homo sapiens

<400> 581
 nacgacggca accattcgct gtggaaggag ctgaacggcc agctcgacgt gcagtttttc
 60
 cacgtcggca tgggcttcaa gacgccagta cgcctgcaca gcgtcgaccc caagaccgcg
 120
 gaagcccgcg aggtgcattt ccgcccgtcg ctgttcaact atgccaagac cacggtggac
 180
 accaagcagc tgaccggcga cctgggtttc tccggtttca agctgttcaa ggcgcggaa
 240

ctggatcgcc atgacgtgct gtcgtttctc ggcgccagtt acttccgtgc ggtggacgca
 300
 acccgccagt acggcctctc cgcacgcggc ctggcgattg atacctacgc gaaaaaacgc
 360
 gaggaattcc ccgacttcac gcagttctgg ttcgaaaccc cgagcaagga cccacgcgt
 419

<210> 582

<211> 139

<212> PRT

<213> Homo sapiens

<400> 582

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Asp | Gly | Asn | His | Ser | Leu | Trp | Lys | Glu | Leu | Asn | Gly | Gln | Leu | Asp |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Val | Gln | Phe | Phe | His | Val | Gly | Met | Gly | Phe | Lys | Thr | Pro | Val | Arg | Met |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| His | Ser | Val | Asp | Pro | Lys | Thr | Arg | Glu | Ala | Arg | Glu | Val | His | Phe | Arg |
| | | 35 | | | | 40 | | | | | | 45 | | | |
| Pro | Ser | Leu | Phe | Asn | Tyr | Ala | Lys | Thr | Thr | Val | Asp | Thr | Lys | Gln | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Thr | Gly | Asp | Leu | Gly | Phe | Ser | Gly | Phe | Lys | Leu | Phe | Lys | Ala | Pro | Glu |
| 65 | | | | 70 | | | | | | 75 | | | | 80 | |
| Leu | Asp | Arg | His | Asp | Val | Leu | Ser | Phe | Leu | Gly | Ala | Ser | Tyr | Phe | Arg |
| | | | 85 | | | | | | | 90 | | | | 95 | |
| Ala | Val | Asp | Ala | Thr | Arg | Gln | Tyr | Gly | Leu | Ser | Ala | Arg | Gly | Leu | Ala |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Ile | Asp | Thr | Tyr | Ala | Lys | Lys | Arg | Glu | Glu | Phe | Pro | Asp | Phe | Thr | Gln |
| | 115 | | | | | 120 | | | | | | 125 | | | |
| Phe | Trp | Phe | Glu | Thr | Pro | Ser | Lys | Asp | Pro | Arg | | | | | |
| | 130 | | | | | 135 | | | | | | | | | |

<210> 583

<211> 407

<212> DNA

<213> Homo sapiens

<400> 583

cttttgatca atgctgatgg cacgaagcta tcgaaaaggc cgggtgatgt ccgcgtagct
 60
 gattatatgg agcaggggatg ggagccggag acgctggtga acctagttgc cctcacgggc
 120
 tatagctatg cgaatttgga gcatgctgat catgatgtca agacgatgaa cgaactcatc
 180
 cgtgactttg agcttactcg tatctcccat acgcgagcca cactcccat ggacaagctt
 240
 gtgtttttga acaagcatca cttgacaaat aagctggcgc tcgccacgac gtgtgagcag
 300
 accaaacaag acctattgtc gcgtatccgg ccgatcacta cctcgtggta cggcgattat
 360
 tcagatgatt atatcctgcg cgtcgtaaca ctgggacccc aacgcgt
 407

<210> 584

<211> 135

<212> PRT

<213> Homo sapiens

<400> 584

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Leu Leu Ile Asn Ala Asp Gly Thr Lys Leu Ser Lys Arg Ser Gly Asp
 1           5           10           15
Val Arg Val Ala Asp Tyr Met Glu Gln Gly Trp Glu Pro Glu Thr Leu
      20           25           30
Val Asn Leu Val Ala Leu Thr Gly Tyr Ser Tyr Ala Asn Leu Glu His
      35           40           45
Ala Asp His Asp Val Lys Thr Met Asn Glu Leu Ile Arg Asp Phe Glu
      50           55           60
Leu Thr Arg Ile Ser His Thr Arg Ala Thr Leu Pro Met Asp Lys Leu
65           70           75           80
Val Phe Leu Asn Lys His His Leu Thr Asn Lys Leu Ala Leu Ala Thr
      85           90           95
Thr Cys Glu Gln Thr Lys Gln Asp Leu Leu Ser Arg Ile Arg Pro Ile
      100          105          110
Thr Thr Ser Trp Tyr Gly Asp Tyr Ser Asp Asp Tyr Ile Leu Arg Val
      115          120          125
Val Thr Leu Gly Pro Gln Arg
      130          135

```

<210> 585

<211> 502

<212> DNA

<213> Homo sapiens

<400> 585

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nnacgcgtcc tcgctggata tgaggctgtg aagaggggaac gctgcgtcat tgatctggac
60
gatattttgt tgtgcgcggt gggattgttg gttcagcacc gtgacatcac tgaggagatt
120
cgggctcggt accgacattt cgttgtcgac gaataccagg acgtttctcc gctgcagcat
180
aggttgcttg aactgtggtt tggcgatcga aatgatgtat gcgtcgtggg agatccgcac
240
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<210> 586

<211> 167

<212> PRT

<213> Homo sapiens

<400> 586

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 His Arg Asp Ile Thr Glu Glu Ile Arg Ala Arg Tyr Arg His Phe Val
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 Val Asp Glu Tyr Gln Asp Val Ser Pro Leu Gln His Arg Leu Leu Glu
 50 55 60
 Leu Trp Phe Gly Asp Arg Asn Asp Val Cys Val Val Gly Asp Pro His
 65 70 75 80
 Gln Ala Ile His Ser Tyr Ala Gly Ala Arg Ala Asp Tyr Leu Leu Asp
 85 90 95
 Phe Val Ala Asp His Pro Gly Ala Lys Arg Ile Asp Leu Val Arg Asn
 100 105 110
 Tyr Arg Ser Thr Pro Glu Ile Val Gln Leu Ala Asn Glu Val Leu Val
 115 120 125
 Asn Arg Met Thr Pro Glu Glu Ala Leu Glu His Gly Arg Gly Val Thr
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 Leu Val Ser Arg Gly Arg Ser Gly Pro Glu Pro Ile Tyr Gln Ala Leu
 145 150 155 160
 Gly Asp Asp Ala Ser Glu Ala
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<210> 587

<211> 746

<212> DNA

<213> Homo sapiens

<400> 587

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<210> 588
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<212> PRT
<213> Homo sapiens

<400> 588
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35 40 45
Leu Tyr Gly Gly Val Gln Ala Ala Phe Pro Gly Ala Phe Ser Phe Arg
50 55 60
His Ala Ala Gly Phe Leu Cys His Cys Pro Pro Gly Phe Glu Gly Ala
65 70 75 80
Asp Cys Gly Val Glu Val Asp Glu Cys Ala Ser Arg Pro Cys Leu Asn
85 90 95
Gly Gly His Cys Gln Asp Leu Pro Asn Gly Phe Gln Cys His Cys Pro
100 105 110
Asp Gly Tyr Ala Gly Pro Thr Cys Glu Glu Asp Val Asp Glu Cys Leu
115 120 125
Ser Asp Pro Cys Leu His Gly Gly Thr Cys Ser Asp Thr Val Ala Gly
130 135 140
Tyr Ile Cys Arg Cys Pro Glu Thr Trp Gly Gly Arg Asp Cys Ser Val
145 150 155 160
Gln Leu Thr Gly Cys Gln Gly His Thr Cys Pro Leu Ala Ala Thr Cys
165 170 175
Ile Pro Ile Phe Glu Ser Gly Val His Ser Tyr Val Cys His Cys Pro
180 185 190
Pro Gly Thr His Gly Pro Phe Cys Gly Gln Asn Thr Thr Phe Ser Val
195 200 205
Met Ala Gly Ser Pro Ile Gln Ala Ser Val Pro Ala Gly Gly Pro Leu
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<210> 589
<211> 381
<212> DNA
<213> Homo sapiens

<400> 589
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180

cagctaccat attctcaggc ggctcctcca gtgcaaactc cccttcacagg ggcaccacca
 240
 ccccaacagt tacagtatgg acaacagcaa ccaatgggtt ctacacagat ggccccaggc
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<210> 590

<211> 127

<212> PRT

<213> Homo sapiens

<400> 590

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| Ile | Ser | Gln | Val | Gln | Leu | Gln | Ser | Gln | Glu | Leu | Ser | Tyr | Gln | Gln | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gln | Gly | Leu | Gln | Pro | Val | Pro | Leu | Gln | Ala | Thr | Met | Ser | Ala | Ala | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Ile | Gln | Pro | Ser | Pro | Val | Asn | Val | Val | Gly | Val | Thr | Ser | Ala | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Gln | Gln | Pro | Ser | Ile | Ser | Ser | Leu | Ala | Gln | Pro | Gln | Leu | Pro | Tyr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Gln | Ala | Ala | Pro | Pro | Val | Gln | Thr | Pro | Leu | Pro | Gly | Ala | Pro | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Pro | Gln | Gln | Leu | Gln | Tyr | Gly | Gln | Gln | Gln | Pro | Met | Val | Ser | Thr | Gln |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Met | Ala | Pro | Gly | His | Val | Lys | Ser | Val | Thr | Gln | Asn | Pro | Ala | Ser | Glu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Tyr | Val | Gln | Gln | Gln | Pro | Ile | Leu | Gln | Thr | Ala | Met | Ser | Ser | Gly | |
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<210> 591

<211> 684

<212> DNA

<213> Homo sapiens

<400> 591

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 180
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 240
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 300
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 360
 tcgggcaaga agtacaagca ctgccacggt cagatcagct aaggtcttta ccggatactg
 420
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 480

cttgtgacgg cagtgcagat atcacattaa aaggagggca ttcattgggtg ttggttctgg
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<210> 592

<211> 133

<212> PRT

<213> Homo sapiens

<400> 592

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| Ser | Thr | Met | Asp | His | Leu | Arg | His | Gly | Ile | His | Leu | Arg | Gly | Tyr | Ala |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Gln | Lys | Asn | Pro | Lys | Gln | Glu | Tyr | Lys | Arg | Glu | Ser | Phe | Thr | Leu | Phe |
| | | 20 | | | | | | 25 | | | | 30 | | | |
| Ser | Glu | Leu | Leu | Asp | Ser | Ile | Lys | Arg | Asp | Ser | Ile | Arg | Val | Leu | Phe |
| | 35 | | | | | | 40 | | | | | 45 | | | |
| His | Val | Gln | Gly | Pro | Gly | Glu | Lys | Ser | Val | Ser | Lys | Xaa | Lys | Ala | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Arg | Gln | Glu | Ala | Glu | Ala | Leu | Ala | Gln | Arg | Met | Gln | Phe | Glu | His |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Ala | Glu | Ala | Pro | Gly | Leu | Asp | Ala | Pro | Glu | Ile | Leu | Gly | Glu | Glu | Val |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Asp | Val | Ala | Leu | Ala | Thr | Ala | Pro | Val | Arg | Asn | Glu | Gln | Lys | Leu | Gly |
| | | 100 | | | | | 105 | | | | | 110 | | | |
| Arg | Asn | Glu | Leu | Cys | Tyr | Cys | Gly | Ser | Gly | Lys | Lys | Tyr | Lys | His | Cys |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| His | Gly | Gln | Ile | Ser | | | | | | | | | | | |
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<211> 615

<212> DNA

<213> Homo sapiens

<400> 593

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 420

accggagact cgggtgcgacg cattcactgg cgctccaccg ctcaccgcgg ggacctcatg
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<210> 594

<211> 205

<212> PRT

<213> Homo sapiens

<400> 594

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Arg | Val | Gln | Thr | Ala | Arg | Ser | Leu | Ala | Pro | Val | Arg | Ile | Ala | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Ser | Gln | Thr | Cys | Glu | Thr | Val | Thr | Val | Glu | Arg | Arg | Gly | Gly | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Pro | Leu | Arg | Ala | Ala | Arg | Phe | Thr | Asp | Thr | Ile | Pro | Ala | Pro | Leu | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gln | Pro | Arg | Trp | Ser | Thr | Ala | Thr | Ile | Gln | Thr | Pro | Val | Ile | Pro | Thr |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Thr | Arg | Gly | Arg | Phe | Val | Ile | Gly | Pro | Val | Met | Met | Arg | Thr | Ile | Asp |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Pro | Phe | Gly | Met | Ala | Arg | His | His | Thr | Asp | Leu | Gly | Gln | Val | Ala | Glu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Val | Ile | Val | Thr | Pro | Arg | Ile | Val | Asp | Leu | Gly | Ala | Ser | Gly | Glu | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gly | Gly | Gln | Gly | Phe | Asp | Thr | Arg | Ser | Ser | Ala | Ile | His | Ala | Gly | Arg |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Arg | Gly | Pro | Asp | Asp | Ala | Met | Val | Arg | Asp | Trp | His | Thr | Gly | Asp | Ser |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Val | Arg | Arg | Ile | His | Trp | Arg | Ser | Thr | Ala | His | Arg | Gly | Asp | Leu | Met |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |
| Val | Arg | Cys | Glu | Glu | Gln | Ala | Trp | Asn | Pro | Ser | Val | Val | Ile | Val | Leu |
| | | | 165 | | | | | 170 | | | | | 175 | | |
| Asp | Ser | Arg | Ala | Arg | Arg | His | Ala | Gly | Thr | Gly | Pro | Asp | Ala | Ser | Phe |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Glu | Trp | Ala | Val | Asn | Ala | Val | Ala | Ser | Ile | Ser | Thr | Arg | | | |
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<210> 595

<211> 303

<212> DNA

<213> Homo sapiens

<400> 595

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 gcctgtgccc gcaaccgccc cgaaattctc tccttgccac cgtgtccgct ttacggagcc
 180

cggagcaagg ctcagaaaaa tgtcccagcc aaaaacatgg tacatgcctg tcatcaggca
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 300
 gga
 303

<210> 596
 <211> 88
 <212> PRT
 <213> Homo sapiens

<400> 596
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 Ala Arg Leu Cys Pro Gln Pro Pro Arg Asn Ser Leu Pro Gly Thr Val
 35 40 45
 Ser Ala Leu Arg Ser Pro Glu Gln Gly Ser Glu Lys Cys Pro Ser Gln
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 Lys His Gly Thr Cys Leu Ser Ser Gly Lys Ser Ser Lys Ser Gly Trp
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<210> 597
 <211> 2709
 <212> DNA
 <213> Homo sapiens

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1380
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2280

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 2340
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 2520
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 2709

<210> 598

<211> 240

<212> PRT

<213> Homo sapiens

<400> 598

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| Xaa | Ala | Cys | Thr | Gln | Cys | Gly | Lys | Ala | Phe | Arg | Trp | Lys | Ser | Asn | Phe |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asn | Leu | His | Lys | Lys | Asn | His | Met | Val | Glu | Lys | Thr | Tyr | Glu | Cys | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Glu | Cys | Gly | Lys | Ser | Phe | Gly | Asp | Leu | Val | Ser | Arg | Arg | Lys | His | Met |
| | | 35 | | | | 40 | | | | | | 45 | | | |
| Arg | Ile | His | Ile | Val | Lys | Lys | Pro | Val | Glu | Cys | Arg | Gln | Cys | Gly | Lys |
| | 50 | | | | 55 | | | | | | 60 | | | | |
| Thr | Phe | Arg | Asn | Gln | Ser | Ile | Leu | Lys | Thr | His | Met | Asn | Ser | His | Thr |
| 65 | | | | 70 | | | | | | 75 | | | | 80 | |
| Gly | Glu | Lys | Pro | Tyr | Gly | Cys | Asp | Leu | Cys | Gly | Lys | Ala | Phe | Ser | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ser | Ser | Asn | Leu | Thr | Ala | His | Arg | Lys | Ile | His | Thr | Gln | Glu | Arg | Arg |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Tyr | Glu | Cys | Ala | Ala | Cys | Gly | Lys | Val | Phe | Gly | Asp | Tyr | Leu | Ser | Arg |
| | 115 | | | | | 120 | | | | | | 125 | | | |
| Arg | Arg | His | Met | Ser | Val | His | Leu | Val | Lys | Lys | Arg | Val | Glu | Cys | Arg |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| His | Cys | Gly | Lys | Ala | Phe | Arg | Asn | Gln | Ser | Thr | Leu | Lys | Thr | His | Met |
| 145 | | | | 150 | | | | | | 155 | | | | 160 | |
| Arg | Ser | His | Thr | Gly | Glu | Lys | Pro | Tyr | Glu | Cys | Asp | His | Cys | Gly | Lys |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Ala | Phe | Ser | Ile | Gly | Ser | Asn | Leu | Asn | Val | His | Arg | Arg | Ile | His | Thr |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Gly | Glu | Lys | Pro | Tyr | Glu | Cys | Leu | Val | Cys | Gly | Lys | Ala | Phe | Ser | Asp |
| | 195 | | | | | 200 | | | | | | 205 | | | |
| His | Ser | Ser | Leu | Arg | Ser | His | Val | Lys | Thr | His | Arg | Gly | Glu | Lys | Leu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Phe | Xaa | Cys | His | Pro | Cys | Gly | Lys | Gly | Ser | Ser | Glu | Arg | Ala | Xaa | Leu |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |

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 <211> 340
 <212> DNA
 <213> Homo sapiens

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 180
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 240
 tggggctcgt cggaggacga ggatgtgagt ggcgatggct ttgcgcgact gggcgtattc
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<210> 600
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 <212> PRT
 <213> Homo sapiens

<400> 600
 Met Pro Trp Thr Ile Trp Ser Thr Ile Ala Gly Trp Asn Thr Pro Ser
 1 5 10 15
 Arg Ala Lys Pro Ser Pro Leu Thr Ser Ser Ser Ser Asp Glu Pro His
 20 25 30
 Ser Leu Pro Thr Arg Ser Ser Arg Gly Thr Pro Thr His Gly Ser Asn
 35 40 45
 Cys Arg Pro Ala Pro Arg Pro Ile Gly His Gly Leu Gln Val Gln Gly
 50 55 60
 Met Arg Pro Gly Lys His Ala Trp Ala Lys Arg Cys Arg Leu Arg Cys
 65 70 75 80
 Thr Ala Thr Pro Ser Thr Cys Ala Met Thr Pro Asn Lys Arg Ser Asp
 85 90 95
 Thr Thr Glu Arg Ser His His Asp Val Lys Ser Arg Glu Ala Arg
 100 105 110

<210> 601
 <211> 421
 <212> DNA
 <213> Homo sapiens

<400> 601
 gccggcggca gcgacatctc gctcaacgtc ggcgtgcgcg gcctgacttc gcgtctttct
 60
 ccgcgctcca ccattttgat ggacggcgtc ccgctggcgg tcgcgcctta cggccagccg
 120
 cagctgtcga tggccccgct gtctatcggg aatctgcaat cgggtggacgt ggtgcgcggc
 180
 ggcggcgcgg tcgcgtacgg gccgcagaac gtcggcggcg tgatcaactt cgttaccgca
 240

gacattccca aaacgtttgg cggtgccgcc agcgtacaaa ccaggggtgc cagccacggc
 300
 ggcctgaaga ccctgaccag cgcctccgtg ggcggcaccg cagacaacgg cctcggcgcc
 360
 gagctgctct actccggcct gcacggccag ggctaccgag acaacaacga caacaccgac
 420
 n
 421

<210> 602
 <211> 140
 <212> PRT
 <213> Homo sapiens

<400> 602
 Ala Gly Gly Ser Asp Ile Ser Leu Asn Val Gly Val Arg Gly Leu Thr
 1 5 10 15
 Ser Arg Leu Ser Pro Arg Ser Thr Ile Leu Met Asp Gly Val Pro Leu
 20 25 30
 Ala Val Ala Pro Tyr Gly Gln Pro Gln Leu Ser Met Ala Pro Leu Ser
 35 40 45
 Ile Gly Asn Leu Gln Ser Val Asp Val Val Arg Gly Gly Gly Ala Val
 50 55 60
 Arg Tyr Gly Pro Gln Asn Val Gly Gly Val Ile Asn Phe Val Thr Arg
 65 70 75 80
 Asp Ile Pro Lys Thr Phe Gly Gly Ala Ala Ser Val Gln Thr Gln Gly
 85 90 95
 Ala Ser His Gly Gly Leu Lys Thr Leu Thr Ser Ala Ser Val Gly Gly
 100 105 110
 Thr Ala Asp Asn Gly Leu Gly Ala Glu Leu Leu Tyr Ser Gly Leu His
 115 120 125
 Gly Gln Gly Tyr Arg Asp Asn Asn Asp Asn Thr Asp
 130 135 140

<210> 603
 <211> 309
 <212> DNA
 <213> Homo sapiens

<400> 603
 nagggcggca tgcacgaaag cttgcgcaaa cgctcgctgg aaggcttgga caagatcggc
 60
 ttcgacggcc tggccatcgg cggtctgtcg gtgggcgagc ccaagcacga gatgatcaag
 120
 gtgctggatt acctgccggg cctgatgccg gctgacaaac ctcgttacct tatgggcgtt
 180
 ggcaaaccgg aagacctcgt agaggggtgtg cgccgcgggtg tggacatggt cgattgcgtg
 240
 atgccaaccc gtaatgcccg caatgggcat ctgttcacg atacaggcgt gctgaagatc
 300
 cgtaacgag
 309

<210> 604

<211> 103
 <212> PRT
 <213> Homo sapiens

<400> 604

```

Xaa Gly Gly Met His Glu Ser Leu Arg Lys Arg Ser Leu Glu Gly Leu
 1           5           10           15
Asp Lys Ile Gly Phe Asp Gly Leu Ala Ile Gly Gly Leu Ser Val Gly
      20           25           30
Glu Pro Lys His Glu Met Ile Lys Val Leu Asp Tyr Leu Pro Gly Leu
      35           40           45
Met Pro Ala Asp Lys Pro Arg Tyr Leu Met Gly Val Gly Lys Pro Glu
      50           55           60
Asp Leu Val Glu Gly Val Arg Arg Gly Val Asp Met Phe Asp Cys Val
65           70           75           80
Met Pro Thr Arg Asn Ala Arg Asn Gly His Leu Phe Ile Asp Thr Gly
      85           90           95
Val Leu Lys Ile Arg Asn Ala
      100
  
```

<210> 605
 <211> 428
 <212> DNA
 <213> Homo sapiens

<400> 605

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acgcgttcac gatagggtag ttgcctatatt caacgcggtc ggtattttcc tgcacaacaa
60
actggcccaa ggctgggcta tagtcagggtg catagtactt ggtgaagtag cgtacgtccg
120
caccacatc acatttcagt accttggcta tcttcaatcg gaaaaaaga ttggagtaaa
180
tggtgagttt tggtaatggc aacgccgttt gactggaaga gttttggaag gtaatgaccg
240
attcccagtg caaagggtccc catgctacat cctgcgacaa tgaggccgtt agcacgttta
300
ttgcctcgct gctttgccga acgccaacct ctgtaccgat acgctgatac tgattgttga
360
tggtataggc ttgcgccagg taggtataat tggtaattc gtccatggca atgcgcagtg
420
aagtcttg
428
  
```

<210> 606
 <211> 135
 <212> PRT
 <213> Homo sapiens

<400> 606

```

Met Asp Glu Leu Thr Asn Tyr Thr Tyr Leu Ala Gln Ala Tyr Thr Ile
 1           5           10           15
Asn Asn Gln Tyr Gln Arg Ile Gly Thr Glu Val Gly Val Arg Gln Ser
      20           25           30
Ser Glu Ala Ile Asn Val Leu Thr Ala Ser Leu Ser Gln Asp Val Ala
  
```

```

      35              40              45
Trp Gly Pro Leu His Trp Glu Ser Val Ile Thr Phe Gln Asn Ser Ser
  50              55              60
Ser Gln Thr Ala Leu Pro Leu Pro Lys Leu Asn Ile Tyr Ser Asn Leu
  65              70              75              80
Phe Phe Arg Leu Lys Ile Ala Lys Val Leu Lys Cys Asp Val Gly Ala
      85              90              95
Asp Val Arg Tyr Phe Thr Lys Tyr Tyr Ala Pro Asp Tyr Ser Pro Ala
      100              105              110
Leu Gly Gln Phe Val Val Gln Glu Asn Thr Asp Arg Val Glu Ile Gly
      115              120              125
Asn Tyr Pro Ile Val Asn Ala
      130              135

```

<210> 607

<211> 366

<212> DNA

<213> Homo sapiens

<400> 607

```

gatcacgatg aattgtgggc gtacacgtac gagaatgtga tggcgctaaa cttgccgcct
60
gacattgtgt gtaaaggatt ctttagaaaa ttggaaaacg tagtgaccgg agtcaatttg
120
gttttcaacg gcaaacatta tcaaattgta aagaaagagg atgacctatt caaattgacc
180
aaaagcaatt gttacaagtt gagcaacata aaatttaaca attggaaata cttgtacttg
240
acaacgcacg gtgtgtacaa cgtgttcacc aacagctttc attcgagctg tccatttttg
300
ttggggacca cgttgccgca gacattcaag aagcccaccg acgaaaagta tttgcccgag
360
gacgcg
366

```

<210> 608

<211> 122

<212> PRT

<213> Homo sapiens

<400> 608

```

Asp His Asp Glu Leu Trp Ala Tyr Thr Tyr Glu Asn Val Met Ala Leu
  1              5              10              15
Asn Leu Pro Pro Asp Ile Val Cys Lys Gly Phe Phe Arg Lys Leu Glu
      20              25              30
Asn Val Val Thr Gly Val Asn Leu Val Phe Asn Gly Lys His Tyr Gln
      35              40              45
Ile Val Lys Lys Glu Asp Asp Leu Phe Lys Leu Thr Lys Ser Asn Cys
      50              55              60
Tyr Lys Leu Ser Asn Ile Lys Phe Asn Asn Trp Lys Tyr Leu Tyr Leu
  65              70              75              80
Thr Thr His Gly Val Tyr Asn Val Phe Thr Asn Ser Phe His Ser Ser
      85              90              95
Cys Pro Phe Leu Leu Gly Thr Thr Leu Pro Gln Thr Phe Lys Lys Pro

```

100 105 110
 Thr Asp Glu Lys Tyr Leu Pro Glu Asp Ala
 115 120

<210> 609
 <211> 291
 <212> DNA
 <213> Homo sapiens

<400> 609
 nacgcgttat gacacggcct cctccaaggt cagtgtcatc gagtcacgta actcgtcggt
 60
 tgggtcgggtt ggaacgagtc cgtcatgagc ccggtcgcca tggacgactc cagcagtcgg
 120
 taccagcctt ggaagcagga ccccccacgcg acggaatcgc cggcttccaa gtcgtcgccc
 180
 ccgaagcctc aaacttcccc cgccccgtac gccgggcccgg ctccgaagac accggccaca
 240
 cctggaccat ctggggcggg ggcgccgccg tggtggtggc ggggtggagcc g
 291

<210> 610
 <211> 69
 <212> PRT
 <213> Homo sapiens

<400> 610
 Met Ser Pro Val Ala Met Asp Asp Ser Ser Ser Pro Tyr Pro Ala Trp
 1 5 10 15
 Lys Gln Asp Pro His Ala Thr Glu Ser Pro Ala Ser Lys Ser Ser Pro
 20 25 30
 Pro Lys Pro Gln Thr Ser Pro Ala Pro Tyr Ala Gly Pro Ala Pro Lys
 35 40 45
 Thr Pro Ala Thr Pro Gly Pro Ser Gly Ala Gly Ala Pro Pro Trp Trp
 50 55 60
 Trp Arg Val Glu Pro
 65

<210> 611
 <211> 393
 <212> DNA
 <213> Homo sapiens

<400> 611
 nnnatcttgt gtcgattttc ggtcgcatat actatggggg agtattgtat aatgcggcgg
 60
 tgtacccaag tagagaggtg ttcgatgccca cacagtccgg aagaaaagaa gcaagcactg
 120
 acgcgcatca ggcgcatcaa aggtcaggta gcgactcttg agcaagcgct tgatgcagggt
 180
 gcgaaatgtc ctgcaattct tcagcagctt gcggccgttc gtggcgagct caacggattg
 240
 atggcaacgg ttctggagag ctatctgcgg gaagagtttc ccagtagcga aatcaggagc
 300

gattcgcaga acaagtccat tgacgagacc atctctatcg tccgctccta tctgcggttag
 360
 aggcaccagg gtgtcctcgg tgaggggcaaa ttt
 393

<210> 612
 <211> 119
 <212> PRT
 <213> Homo sapiens

<400> 612
 Xaa Ile Leu Cys Arg Phe Ser Val Ala Tyr Thr Met Gly Glu Tyr Cys
 1 5 10 15
 Ile Met Arg Arg Cys Thr Gln Val Glu Arg Cys Ser Met Pro His Ser
 20 25 30
 Pro Glu Glu Lys Lys Gln Ala Leu Thr Arg Ile Arg Arg Ile Lys Gly
 35 40 45
 Gln Val Ala Thr Leu Glu Gln Ala Leu Asp Ala Gly Ala Lys Cys Pro
 50 55 60
 Ala Ile Leu Gln Gln Leu Ala Ala Val Arg Gly Ala Val Asn Gly Leu
 65 70 75 80
 Met Ala Thr Val Leu Glu Ser Tyr Leu Arg Glu Glu Phe Pro Ser Ser
 85 90 95
 Glu Ile Arg Ser Asp Ser Gln Asn Lys Ser Ile Asp Glu Thr Ile Ser
 100 105 110
 Ile Val Arg Ser Tyr Leu Arg
 115

<210> 613
 <211> 567
 <212> DNA
 <213> Homo sapiens

<400> 613
 gaaaatgctc ctggcgccctc aggggaaggctc cttctcaaag aaaaggatgg ggctgaatcg
 60
 ctggaaacgg ttcacaagga agccgagtc caagcctact tttggtoctg acagtgtgga
 120
 aactgggata aagagagtgg agaaagcctc agagtttgca gtgtcaaata cattttttac
 180
 tagaaattca gatttaccta gaagtccttg gggccaaatc acagatttga aaacatctga
 240
 gcaaatagag gatcatgatg aaatctatgc agaagctcag gagctgggtca atgactgggt
 300
 agacacccaaa cttaagcaag aattagcaag tgaggaagaa ggtgatgcta aaaacactgt
 360
 gtcaagtgtc actattatgc cggaagccaa tggccatttg aaatatgaca agtttggatga
 420
 tttatgtggc tatttggagg aagaagagga aagtaccacc gttcaaaaat ttatagacca
 480
 tctgctccat aaaaatgtgg tagattctgc aatgatggaa gatcttggaa ggaaggaaaa
 540
 ccaagacaag aagcagcaga aggatcc
 567

<210> 614
 <211> 187
 <212> PRT
 <213> Homo sapiens

<400> 614
 Met Leu Leu Ala Pro Gln Gly Arg Ser Phe Ser Lys Lys Arg Met Gly
 1 5 10 15
 Leu Asn Arg Trp Lys Arg Phe Thr Arg Lys Pro Ser Pro Lys Pro Thr
 20 25 30
 Phe Gly Pro Asp Ser Val Glu His Trp Ile Lys Arg Val Glu Lys Ala
 35 40 45
 Ser Glu Phe Ala Val Ser Asn Ala Phe Phe Thr Arg Asn Ser Asp Leu
 50 55 60
 Pro Arg Ser Pro Trp Gly Gln Ile Thr Asp Leu Lys Thr Ser Glu Gln
 65 70 75 80
 Ile Glu Asp His Asp Glu Ile Tyr Ala Glu Ala Gln Glu Leu Val Asn
 85 90 95
 Asp Trp Leu Asp Thr Lys Leu Lys Gln Glu Leu Ala Ser Glu Glu Glu
 100 105 110
 Gly Asp Ala Lys Asn Thr Val Ser Ser Val Thr Ile Met Pro Glu Ala
 115 120 125
 Asn Gly His Leu Lys Tyr Asp Lys Phe Asp Asp Leu Cys Gly Tyr Leu
 130 135 140
 Glu Glu Glu Glu Glu Ser Thr Thr Val Gln Lys Phe Ile Asp His Leu
 145 150 155 160
 Leu His Lys Asn Val Val Asp Ser Ala Met Met Glu Asp Leu Gly Arg
 165 170 175
 Lys Glu Asn Gln Asp Lys Lys Gln Gln Lys Asp
 180 185

<210> 615
 <211> 685
 <212> DNA
 <213> Homo sapiens

<400> 615
 nnacgcgtgc tgccctaagt gacggattcc atgtcgggtgc gagtcgggtc ggggccgatg
 60
 ggccatgaac gggccctagc gagggccgga ctcgccccg tggccggatg cgacgaggcg
 120
 gggcggggcg cgtgtgcagg gccattggta gccgcagctg tcattcttga tgatcgcaga
 180
 tccggcagga ttgcggggct agcagattcc aagacactat ctgcggccaa gagagaggcc
 240
 ctgtttaacg tcatcatgga taaagctttg gcagtgtcgt gggtagctgt agaagccgac
 300
 gaatgcgatc ggttggggat gcaggaggca gatatcagcg gcttgaggcg tgccgtggtg
 360
 aggtgggag ttgaaccggg ctacgtgctg tcggacggtt tcccggtcga cggactgacg
 420
 gttcccgatc tgggaatgtg gaagggcgat tcagtgtgtg cgtgtgtggc agctgcctcc
 480

atcgtggcca aagtggccag ggatcgcac atgacgccta tggacgccga gattcctggt
 540
 tacgattttg cgggtgcacaa ggggtacgag acagccttac accagcgtcg tctgaaggag
 600
 ttaggaccgt ctcgtcagca ccggatgagc tacgccaatg tgcgacgagc ggctaggctt
 660
 cattcatcat gagtgccgaa gatct
 685

<210> 616
 <211> 213
 <212> PRT
 <213> Homo sapiens

<400> 616
 Met Ser Val Arg Val Gly Ser Gly Pro Met Gly His Glu Arg Ala Leu
 1 5 10 15
 Ala Arg Ala Gly Leu Gly Pro Val Ala Gly Cys Asp Glu Ala Gly Arg
 20 25 30
 Gly Ala Cys Ala Gly Pro Leu Val Ala Ala Val Ile Leu Asp Asp
 35 40 45
 Arg Arg Ser Gly Arg Ile Ala Gly Leu Ala Asp Ser Lys Thr Leu Ser
 50 55 60
 Ala Ala Lys Arg Glu Ala Leu Phe Asn Val Ile Met Asp Lys Ala Leu
 65 70 75 80
 Ala Val Ser Trp Val Arg Val Glu Ala Asp Glu Cys Asp Arg Leu Gly
 85 90 95
 Met Gln Glu Ala Asp Ile Ser Gly Leu Arg Arg Ala Val Val Arg Leu
 100 105 110
 Gly Val Glu Pro Gly Tyr Val Leu Ser Asp Gly Phe Pro Val Asp Gly
 115 120 125
 Leu Thr Val Pro Asp Leu Gly Met Trp Lys Gly Asp Ser Val Cys Ala
 130 135 140
 Cys Val Ala Ala Ala Ser Ile Val Ala Lys Val Ala Arg Asp Arg Ile
 145 150 155 160
 Met Ile Ala Met Asp Ala Glu Ile Pro Gly Tyr Asp Phe Ala Val His
 165 170 175
 Lys Gly Tyr Ala Thr Ala Leu His Gln Arg Arg Leu Lys Glu Leu Gly
 180 185 190
 Pro Ser Arg Gln His Arg Met Ser Tyr Ala Asn Val Arg Arg Ala Ala
 195 200 205
 Arg Leu His Ser Ser
 210

<210> 617
 <211> 337
 <212> DNA
 <213> Homo sapiens

<400> 617
 nncacctgtt tggctcgggg cactcgcgga tcatggtcga ggaaatgtgg ccgcgctacg
 60
 gctcgtttcc cggcttcaac cccatcgtcg agctgtcgtc gtcgttccac aacctcgtcg
 120

tcggcgccaa cggccagcgc caggccatgt tcctcgaaaa cgtttcgggc cttcccggag
 180
 cgaatcctcc gaaacttcga cctgtcccaa caagactctg cactcgtgat ttcacaaagc
 240
 gctgcaacgt cgtgccaatc gagatggccg aggagttcca gcgtcgcggc gtccgcgtcg
 300
 tctcgatcat ctcgctggcg cactcgagg cgtcgac
 337

<210> 618

<211> 112

<212> PRT

<213> Homo sapiens

<400> 618

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Thr | Cys | Leu | Ala | Arg | Gly | Thr | Arg | Gly | Ser | Trp | Ser | Arg | Lys | Cys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Arg | Ala | Thr | Ala | Arg | Phe | Pro | Ala | Ser | Thr | Pro | Ser | Ser | Ser | Cys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Cys | Arg | Ser | Thr | Thr | Ser | Ser | Ala | Pro | Thr | Ala | Ser | Ala | Arg | |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Pro | Cys | Ser | Ser | Lys | Thr | Phe | Pro | Ala | Phe | Pro | Glu | Arg | Ile | Leu | Arg |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Asn | Phe | Asp | Leu | Ser | Gln | Gln | Asp | Ser | Ala | Leu | Val | Ile | Ser | Ser | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ala | Ala | Thr | Ser | Cys | Gln | Ser | Arg | Trp | Pro | Arg | Ser | Ser | Ser | Val | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ala | Ser | Ala | Ser | Ser | Arg | Ser | Ser | Arg | Trp | Arg | Thr | Arg | Arg | Arg | Arg |
| | | | 100 | | | | | 105 | | | | | | 110 | |

<210> 619

<211> 425

<212> DNA

<213> Homo sapiens

<400> 619

acgcgttttt tatgccgatc ttatgctcta acctagaaac aatatcagct acaaacctaa
 60
 tagctataag ataatttcg aaagcatcaa taggagtttt gatcatttcc gcatacctaa
 120
 gttttatagc atctttgtca gaaggcaaac ctgccaaacc agatgaatcg atgccactct
 180
 caaacttgct caaatgttca attaaatcat ccaagttgtg gccatgctta ccgcttccag
 240
 attttgaatg aatcattact ttaattgatt tttcaatcgc taaatggaat tcccagcaag
 300
 caatagaagc ccgctcattt ttaaagctca gtatgtcact aatgcctttt tcgaagtggc
 360
 tccatattcc ctgcgccata ttagaagctg actgggttga atggcttgcc atgttcaa
 420
 ctaga
 425

<210> 620

<211> 137
 <212> PRT
 <213> Homo sapiens

<400> 620
 Met Ala Ser His Ser Asn Gln Ser Ala Ser Asn Met Ala Gln Gly Ile
 1 5 10 15
 Trp Ser His Phe Glu Lys Gly Ile Ser Asp Ile Leu Ser Phe Lys Asn
 20 25 30
 Glu Arg Ala Ser Ile Ala Cys Trp Glu Phe His Leu Ala Ile Glu Lys
 35 40 45
 Ser Ile Lys Val Met Ile His Ser Lys Ser Gly Ser Gly Lys His Gly
 50 55 60
 His Asn Leu Asp Asp Leu Ile Glu His Leu Ser Lys Phe Glu Ser Gly
 65 70 75 80
 Ile Asp Ser Ser Gly Leu Ala Gly Leu Pro Ser Asp Lys Asp Ala Ile
 85 90 95
 Lys Leu Arg Tyr Ala Glu Met Ile Lys Thr Pro Ile Asp Ala Phe Glu
 100 105 110
 Tyr Tyr Leu Ile Ala Ile Arg Phe Val Ala Asp Ile Val Ser Arg Leu
 115 120 125
 Glu His Lys Ile Gly Ile Lys Asn Ala
 130 135

<210> 621
 <211> 453
 <212> DNA
 <213> Homo sapiens

<400> 621
 cccggcaagg gagccatctt gacgaatatg tccttgtggt ggttcgacca attggccgac
 60
 atcgctgata accatctcgt gagcgtggat gtccccgccg aggtcgagg gcgcgccatg
 120
 gtcgttgagg aactcgacat gttccccggtc gaatgcgtcg tgcgggggcta cctcaccggt
 180
 tcagggtggg ccgaatatca gcgcaaccag gccgtgtgcy gaatccgcct tcccgagggg
 240
 ctgcagaatg ggtccccggt cgaagagccc attttcacc cggcaattaa ggccccgcag
 300
 ggagaacatg acgagaacat cgactatcta cgcttgtag aactcgtcgg tcccngatgn
 360
 tcagcgcagc tgcctgacct ttcgctgagg gtctaccagc gtgcagagga gatcgctcgg
 420
 aagcgaggca tcctcctggc ggataccaag ctt
 453

<210> 622
 <211> 151
 <212> PRT
 <213> Homo sapiens

<400> 622
 Pro Gly Lys Gly Ala Ile Leu Thr Asn Met Ser Leu Trp Trp Phe Asp

```

      1             5             10             15
Gln Leu Ala Asp Ile Val Asp Asn His Leu Val Ser Val Asp Val Pro
      20             25             30
Ala Glu Val Ala Gly Arg Ala Met Val Val Glu Glu Leu Asp Met Phe
      35             40             45
Pro Val Glu Cys Val Val Arg Gly Tyr Leu Thr Gly Ser Gly Trp Ala
      50             55             60
Glu Tyr Gln Arg Asn Gln Ala Val Cys Gly Ile Arg Leu Pro Glu Gly
      65             70             75             80
Leu Gln Asn Gly Ser Arg Leu Glu Glu Pro Ile Phe Thr Pro Ala Ile
      85             90             95
Lys Ala Pro Gln Gly Glu His Asp Glu Asn Ile Asp Tyr Leu Arg Leu
      100            105            110
Val Glu Leu Val Gly Pro Xaa Xaa Ser Ala Gln Leu His Asp Leu Ser
      115            120            125
Leu Arg Val Tyr Gln Arg Ala Glu Glu Ile Ala Arg Lys Arg Gly Ile
      130            135            140
Leu Leu Ala Asp Thr Lys Leu
145             150

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<210> 623
 <211> 345
 <212> DNA
 <213> Homo sapiens

```

<400> 623
acgcgtccag tatgtccacg gaggacatgc ttgacctcga ctggaacgtc tctactacg
60
cgaggaacta tcaggccgcg caatcagttg tggcgaaatt cgacgcgggc accattgccc
120
aagccgaaga cctgccacct gacgacaccc acacgggggc ggaactggta aagagcgtgg
180
tcaacagcat cacctgtgtg tcaccctgtg acatcgaaga tttcaccacc atagagatcc
240
aggggctggg actgcactgt gtcaggctct gggcgcttgg gctgctcgcc ctgtcactgc
300
ccagcgcacc catgcgggca cacccecgt acgccgcata tggcg
345

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<210> 624
 <211> 111
 <212> PRT
 <213> Homo sapiens

```

<400> 624
Met Ser Thr Glu Asp Met Leu Asp Leu Asp Ser Asn Val Ser Tyr Tyr
      1             5             10             15
Ala Arg Asn Tyr Gln Ala Ala Gln Ser Val Val Ala Lys Phe Asp Ala
      20             25             30
Gly Thr Ile Ala Gln Ala Glu Asp Leu Pro Pro Asp Asp Thr His Thr
      35             40             45
Gly Ala Glu Leu Val Lys Ser Val Val Asn Ser Ile Thr Cys Val Ser
      50             55             60
Pro Leu Tyr Ile Glu Asp Phe Thr Thr Ile Glu Ile Gln Gly Leu Gly

```

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 65 | | 70 | | 75 | | 80 | | | | | | | | | |
| Leu | His | Cys | Val | Arg | Leu | Trp | Ala | Pro | Gly | Leu | Leu | Ala | Leu | Ser | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Pro | Ser | Ala | Pro | Met | Arg | Ala | His | Pro | Arg | Tyr | Ala | Ala | Tyr | Gly | |
| | | | 100 | | | | | 105 | | | | | 110 | | |

<210> 625

<211> 339

<212> DNA

<213> Homo sapiens

<400> 625

```

ggtacccagc atgatgctgc tagacatttg ctgaatgcat agatgatttt tccagggcct
60
gtaatttaca gggagagcaa tggaggccca gagacaagat gattcagctc ctccactctg
120
ttcaggatca tatcctaagg accaacaatgt ctgtctacct ttacactgag cccccaccca
180
gcccaaccacc tcccatgaga gacaggctct ccctgcttga gcttggaccc aggcccttc
240
tctgctgagc tcagaacaca tgcttgactg tgatgtaaca ggggtggcagc cccacagca
300
ttgcatctgc cccatactca gtgtggggag ataggacgc
339

```

<210> 626

<211> 105

<212> PRT

<213> Homo sapiens

<400> 626

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Gly | Gln | Met | Gln | Cys | Cys | Gly | Gly | Cys | His | Pro | Val | Thr | Ser | Gln |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ser | Ser | Met | Cys | Ser | Glu | Leu | Ser | Arg | Glu | Gly | Ala | Trp | Val | Gln | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gln | Ala | Gly | Arg | Ala | Cys | Leu | Ser | Trp | Glu | Val | Val | Gly | Trp | Val | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
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| Ser | Ser | Asp | Ser | Gly | Asp | Leu | Gly | Lys | Trp | Gln | Asp | Lys | Ile | Thr | Val |
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| Lys | Ala | Gly | Asp | Asp | Thr | Pro | Val | Gly | Tyr | Ser | Val | Pro | Ile | Lys | Pro |
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| Leu | Asp | Ser | Ser | Arg | Gln | Asn | Gly | Thr | Glu | Ala | Thr | Ser | Tyr | Tyr | Trp |
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| Cys | Lys | Phe | Cys | Ser | Phe | Ser | Cys | Glu | Ser | Ser | Ser | Ser | Leu | Lys | Leu |
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| | 1125 | 1130 |
| Asn Pro His Tyr Leu Ser His Val Pro Gly Leu Pro Asn Pro Cys Gln | | 1135 |
| | 1140 | 1145 |
| Asn Tyr Val Pro Tyr Pro Thr Phe Asn Leu Pro Pro His Phe Ser Ala | | 1150 |
| | 1155 | 1160 |
| Val Gly Ser Asp Asn Asp Ile Pro Leu Asp Leu Ala Ile Lys His Ser | | 1165 |
| | 1170 | 1175 |
| Arg Pro Gly Pro Thr Ala Asn Gly Ala Ser Lys Glu Lys Thr Lys Ala | | 1180 |
| 1185 | 1190 | 1195 |
| Pro Pro Asn Val Lys Asn Glu Gly Pro Leu Asn Val Val Lys Thr Glu | | 1200 |
| | 1205 | 1210 |
| Lys Val Asp Arg Ser Thr Gln Asp Glu Leu Ser Thr Lys Cys Val His | | 1215 |
| | 1220 | 1225 |
| Cys Gly Ile Val Phe Leu Asp Glu Val Met Tyr Ala Leu His Met Ser | | 1230 |
| | 1235 | 1240 |
| Cys His Gly Asp Ser Gly Pro Phe Gln Cys Ser Ile Cys Gln His Leu | | 1245 |
| | 1250 | 1255 |
| Cys Thr Asp Lys Tyr Asp Phe Thr Thr His Ile Gln Arg Gly Leu His | | 1260 |
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      35             40             45
Thr Leu Pro Gly Arg Asn Trp Ile Asn Leu Gly Leu Leu Val Val Ile
      50             55             60
Ile Ala Cys Gly Ile Trp Phe Ser Asn Val Ser Gly Gly Ile Ala Trp
65             70             75             80
Leu Pro Leu Ala Leu Leu Thr Leu Ala Ser Leu Phe Leu Gly Phe His
      85             90             95
Phe Val Ala Ala Ile Gly Gly Ala Asp Met Pro Val Val Ile Ser Met
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Leu Asn Ser Tyr Ser Gly Trp Ala Ala Ala Phe Ser Gly Phe Ser Leu
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      35             40             45
Glu Arg Asp Gln Tyr Lys Leu Met Ala Asn Gln Leu Arg Glu Arg His
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 Gln Leu Leu Thr Thr Gly Gly Thr Ser Asp Gly Arg Phe Ile Ala Gln
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210 215 220
Leu Asp Asn His Leu Asn Glu Ala Lys Val Pro Asn Gly Ser Gly Ser
225 230 235 240
Pro Thr Lys Asp Ala Leu Gly Gly Tyr Thr Arg Val Asp Thr Lys Pro
245 250 255
Ser Ala Thr Ser Ser Ser Met Arg Arg Arg Arg His Ala Phe Arg Arg
260 265 270
Gln Ala Ser Ser Thr Phe Ser Tyr Tyr Gly Lys Leu Gly Ser His Cys
275 280 285
Tyr Arg Tyr Arg Arg Ala Asn Ala Val Val Leu Ile Lys Pro Ser Arg

| | | |
|---|-----|-----|
| 290 | 295 | 300 |
| Ser Met Ser Asp Leu Tyr Asp Met Gln Lys Arg Gln Arg Gln His Arg | | |
| 305 | 310 | 315 |
| His Arg Asn Gln Ser Gly Ala Thr Thr Ser Ser Gly Asp Thr Glu Ser | | 320 |
| | 325 | 330 |
| | | 335 |
| Glu Glu Gly Glu Gly Glu Thr Thr Val Arg Leu Leu Trp Leu Ser Met | | |
| | 340 | 345 |
| | | 350 |
| Leu Lys Met Pro Arg Glu Leu Met Arg Leu Cys Leu Cys His Leu Leu | | |
| | 355 | 360 |
| | | 365 |
| Thr Trp Phe Ser Val Ile Ala Glu Ala Val Phe Tyr Thr Asp Phe Met | | |
| | 370 | 375 |
| | | 380 |
| Gly Gln Val Ile Phe Glu Gly Asp Pro Lys Ala Pro Ser Asn Ser Thr | | |
| 385 | 390 | 395 |
| | | 400 |
| Ala Trp Gln Ala Tyr Asn Ala Gly Val Lys Met Gly Cys Trp Gly Leu | | |
| | 405 | 410 |
| | | 415 |
| Val Ile Tyr Ala Ala Thr Gly Ala Ile Cys Ser Ala Leu Leu Gln Lys | | |
| | 420 | 425 |
| | | 430 |
| Tyr Leu Asp Asn Tyr Asp Leu Ser Val Arg Val Ile Tyr Val Leu Gly | | |
| | 435 | 440 |
| | | 445 |
| Thr Leu Gly Phe Ser Val Gly Thr Ala Val Met Ala Met Phe Pro Asn | | |
| | 450 | 455 |
| | | 460 |
| Val Tyr Val Ala Met Val Thr Ile Ser Thr Met Gly Ile Val Ser Met | | |
| 465 | 470 | 475 |
| | | 480 |
| Ser Ile Ser Tyr Cys Pro Tyr Ala Leu Leu Gly Gln Tyr His Asp Ile | | |
| | 485 | 490 |
| | | 495 |
| Lys Gln Tyr Ile His His Ser Pro Gly Asn Ser Lys Arg Gly Phe Gly | | |
| | 500 | 505 |
| | | 510 |
| Ile Asp Cys Ala Ile Leu Ser Cys Gln Val Tyr Ile Ser Gln Ile Leu | | |
| | 515 | 520 |
| | | 525 |
| Val Ala Ser Ala Leu Gly Gly Val Val Asp Ala Val Gly Thr Val Arg | | |
| | 530 | 535 |
| | | 540 |
| Val Ile Pro Met Val Ala Ser Val Gly Ser Phe Leu Gly Phe Leu Thr | | |
| 545 | 550 | 555 |
| | | 560 |
| Ala Thr Phe Leu Val Ile Tyr Pro Asp Val Ser Glu Glu Ala Lys Glu | | |
| | 565 | 570 |
| | | 575 |
| Glu Gln Lys Gly Leu Ser Ser Pro Leu Ala Gly Glu Gly Arg Ala Gly | | |
| | 580 | 585 |
| | | 590 |
| Gly Asn Ser Glu Lys Pro Thr Val Leu Lys Leu Thr Arg Lys Glu Gly | | |
| | 595 | 600 |
| | | 605 |
| Leu Gln Gly Pro Val Glu Thr Glu Ser Val Val | | |
| 610 | 615 | |

<210> 637

<211> 370

<212> DNA

<213> Homo sapiens

<400> 637

ngaaaaacag gatgaatccc gtatcattct taagcccgaa aagtactgaa tgtcgtcttc
60

tctcgatcgg tgatgatctg gaaaggaaaa atcatcgtga ctactacatc acccgctact
120

acgcaaagac cgtcagttgg caggaaagtt ggttcctggc cccttaatcc atgggtgtttt
180

tgtaggccct tattatTTTT cggaaTggTt cggTttattg cgattccagt attcctcact
 240
 gtgccgaata tcattaatat cggaaTccaa gccgcggtgg tggcgattat ggccttcggt
 300
 atgaccttcg tcatcgTtac ctccggcatt gatttGtctg tgggttcggt cgcagctctt
 360
 tcagccatgg
 370

<210> 638
 <211> 99
 <212> PRT
 <213> Homo sapiens

<400> 638
 Met Ile Trp Lys Gly Lys Ile Ile Val Thr Thr Thr Ser Pro Ala Thr
 1 5 10 15
 Thr Gln Arg Pro Ser Val Gly Arg Lys Val Gly Ser Trp Ser Leu Asn
 20 25 30
 Pro Trp Cys Phe Cys Arg Pro Leu Phe Phe Gly Met Val Arg Phe
 35 40 45
 Ile Ala Ile Pro Val Phe Leu Thr Val Pro Asn Ile Ile Asn Ile Gly
 50 55 60
 Ile Gln Ala Ala Val Val Ala Ile Met Ala Phe Gly Met Thr Phe Val
 65 70 75 80
 Ile Val Thr Ser Gly Ile Asp Leu Ser Val Gly Ser Val Ala Ala Leu
 85 90 95
 Ser Ala Met

<210> 639
 <211> 330
 <212> DNA
 <213> Homo sapiens

<400> 639
 nacgcgtcga tgggcaacta catcttcagt cgggatgccc tggtcgaggc actcttcgca
 60
 gactcccagt ccgctgagtc gcgtcatgac atgggtggcg acatcatccc gagattcgtc
 120
 gaggccgggg acgcgcaggt ctacgacttc tgtgacaacc aggtgcccgg aaccaccgag
 180
 aaggatcggg actactggcg ggacgtggga actatcgatg cctaccacga cgcgcacatg
 240
 gacctcgtgt cggTggaacc ggagTtcaac ctctacaacc ccgactggcc gatctggagc
 300
 atccaggaac aggcaccggg agcgaaattt
 330

<210> 640
 <211> 110
 <212> PRT
 <213> Homo sapiens

<400> 640

```

Xaa Ala Ser Met Gly Asn Tyr Ile Phe Ser Arg Asp Ala Leu Val Glu
 1           5           10           15
Ala Leu Phe Ala Asp Ser Gln Ser Ala Glu Ser Arg His Asp Met Gly
          20           25           30
Gly Asp Ile Ile Pro Arg Phe Val Glu Ala Gly Asp Ala Gln Val Tyr
          35           40           45
Asp Phe Cys Asp Asn Gln Val Pro Gly Thr Thr Glu Lys Asp Arg Asp
          50           55           60
Tyr Trp Arg Asp Val Gly Thr Ile Asp Ala Tyr His Asp Ala His Met
65           70           75           80
Asp Leu Val Ser Val Glu Pro Glu Phe Asn Leu Tyr Asn Pro Asp Trp
          85           90           95
Pro Ile Trp Ser Ile Gln Glu Gln Ala Pro Gly Ala Lys Phe
          100           105           110

```

<210> 641

<211> 491

<212> DNA

<213> Homo sapiens

<400> 641

```

cgcggtgaccg gcgcggagaa cgtgcgcaag atcctcatgg gcgagcacca cctcgtgagc
60
accgagtggc ctcgcagcac ccgcatgttg ctggggcccca acacggtgtc caattccatt
120
ggcgacatcc accgcaacaa gcgcaaggtc ttctccaaga tcttcagcca cgaggccctg
180
gagagttacc tgcccaagat ccagctggtg atccaggaca cactgcgcgc ctggagcagc
240
caccgaggg ccatcaacgt gtaccaggag gcgcagaagc tgaccttcg catggccatc
300
cgggtgctgc tgggcttcag catccctgag gaggaccttg ggcacctctt tgaggtctac
360
cagcagtttg tggacaatgt cttctccctg cctgtcgacc tgcccttcag tggctaccgg
420
cggggcattc aggctcggca gatcctgcag aaggggctgg agaaggccat ccgggagaag
480
ctgcagtgc c
491

```

<210> 642

<211> 163

<212> PRT

<213> Homo sapiens

<400> 642

```

Arg Val Thr Gly Ala Glu Asn Val Arg Lys Ile Leu Met Gly Glu His
 1           5           10           15
His Leu Val Ser Thr Glu Trp Pro Arg Ser Thr Arg Met Leu Leu Gly
          20           25           30
Pro Asn Thr Val Ser Asn Ser Ile Gly Asp Ile His Arg Asn Lys Arg
          35           40           45
Lys Val Phe Ser Lys Ile Phe Ser His Glu Ala Leu Glu Ser Tyr Leu

```

| | | |
|---|---|-----|
| 50 | 55 | 60 |
| Pro Lys Ile Gln Leu Val | Ile Gln Asp Thr Leu Arg Ala Trp Ser Ser | |
| 65 | 70 | 75 |
| His Pro Glu Ala Ile Asn Val Tyr Gln Glu Ala Gln Lys Leu Thr Phe | | 80 |
| | 85 | 90 |
| Arg Met Ala Ile Arg Val Leu Leu Gly Phe Ser Ile Pro Glu Glu Asp | | 95 |
| | 100 | 105 |
| Leu Gly His Leu Phe Glu Val Tyr Gln Gln Phe Val Asp Asn Val Phe | | 110 |
| | 115 | 120 |
| Ser Leu Pro Val Asp Leu Pro Phe Ser Gly Tyr Arg Arg Gly Ile Gln | | 125 |
| | 130 | 135 |
| Ala Arg Gln Ile Leu Gln Lys Gly Leu Glu Lys Ala Ile Arg Glu Lys | | 140 |
| 145 | 150 | 155 |
| Leu Gln Cys | | 160 |

<210> 643
 <211> 628
 <212> DNA
 <213> Homo sapiens

<400> 643
 nagatctttg acatctacgt ggtcacctgc gactacctgc ccctaggggc tgagcaggat
 60
 gccatcacgc tgcgggaagg ccagtatgtg gaggtcctgg atgcagccca cccactgcgc
 120
 tggcttgtcc gcaccaagcc caccaagtcc agccccctcac ggcagggctg ggtgtcacca
 180
 gcctacctgg acaggaggct caagctgtca cctgagtggg gggccgctga ggcacctgag
 240
 ttccctgggg aggctgtgtc tgaagacgaa tacaaggcaa ggctgagctc tgtgatccag
 300
 gagctgctga gttctgagca ggccttcctg gaggagctgc agttcctgca gagccaccac
 360
 ctgcagcacc tggagcgctg cccccacgtg cccatagctg tggccggcca gaaggcagtc
 420
 atcttccgca atgtgcggga catcggccgc ttccacagca gcttctgca ggagttgcag
 480
 cagtgcgaca cggacgacga cgtggccatg tgcttcatca agaaccaggc ggcctttgag
 540
 cagtacctgg agttcctggt gggacgtgtg caggctgagt cggtggtcgt cagcacggcc
 600
 atccaggagt tctacaagaa atacgcgt
 628

<210> 644
 <211> 209
 <212> PRT
 <213> Homo sapiens

<400> 644
 Xaa Ile Phe Asp Ile Tyr Val Val Thr Ala Asp Tyr Leu Pro Leu Gly
 1 5 10 15
 Ala Glu Gln Asp Ala Ile Thr Leu Arg Glu Gly Gln Tyr Val Glu Val

[illegible]

```
<210> 645
<211> 417
<212> DNA
<213> Homo sapiens
```

```
<400> 645
atccataggc attgccagag tattcacttc ctgttggagg cacacagggg agaggcctgt
60
gaggggaagg gcatcaatgc agggctgggg tgtgggaagg tctgcagggc tggcaatggg
120
caagctcagg aatgggtgggg gagacagttg gagccacggc agggacaatg gagctcagaa
180
ggtcacctctg tcatcccttt tggaacccat tgatctggaa aatttggggc agtgtccttt
240
tccgtaggta ctggaggcac tggcttgaca tactacagcc ctcccaggag gcccagaagg
300
tagatgttat aactaccccc attttccaga tgaagaaact gagcctctgg gatctgcgga
360
agctcccaga gctggagcag ttagtccctg ggccctacac tcacagcaca gtttccc
417
```

```
<210> 646
<211> 95
<212> PRT
<213> Homo sapiens
```

<400> 646
Met Val Gly Glu Thr Val Gly Ala Thr Ala Gly Thr Met Glu Leu Arg

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Ser | Leu | Cys | His | Pro | Phe | Trp | Asn | Pro | Leu | Ile | Trp | Lys | Ile | Trp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Ser | Val | Leu | Phe | Arg | Arg | Tyr | Trp | Arg | His | Trp | Leu | Asp | Ile | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gln | Pro | Ser | Gln | Glu | Ala | Gln | Lys | Val | Asp | Val | Ile | Thr | Thr | Pro | Ile |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Phe | Gln | Met | Lys | Lys | Leu | Ser | Leu | Trp | Asp | Leu | Arg | Lys | Leu | Pro | Glu |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Leu | Glu | Gln | Leu | Val | Pro | Gly | Pro | Tyr | Thr | His | Ser | Thr | Val | Ser | |
| | | | 85 | | | | | 90 | | | | | | 95 | |

<210> 647

<211> 421

<212> DNA

<213> Homo sapiens

<400> 647

```

acgcgttttcg gttcttgagc gcttccacca attcagcggg ggtgagcggc ccctgtgcat
60
cgcgacgacag ggtgatcaga taggcgatat ccgcctcggt cagttgcacg gtgtcgttat
120
cggtagccat gcgtggcgaa ctcttttggc atgggaaaat cgggtgaggg caacggggcac
180
agcaacagga cgtgtccctt gcggcacgtg gcaacacgtc agtatagcgc gtttcggccg
240
ggatttccgt tgaatgaagg caagaagtcg ggcacgcac cactgctac cgctcgggtg
300
tacgatagcc gcggcgccac caggttggtt acattccaaa cgcaacgcag gaaccgcac
360
gaacagcggt tttcgcaaca aacccttat gacgctggct ctcgggcatt tcagtgtcga
420
c
421

```

<210> 648

<211> 90

<212> PRT

<213> Homo sapiens

<400> 648

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Gly | Lys | Ser | Gly | Glu | Ala | Asn | Gly | His | Ser | Asn | Arg | Thr | Cys | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Arg | His | Val | Ala | Thr | Arg | Gln | Tyr | Ser | Ala | Phe | Pro | Pro | Gly | Phe |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| Pro | Leu | Asn | Glu | Gly | Lys | Lys | Ser | Gly | Thr | His | Pro | Pro | Ala | Thr | Ala |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Arg | Trp | Tyr | Asp | Ser | Arg | Gly | Ala | Thr | Arg | Leu | Ala | Thr | Phe | Gln | Thr |
| | 50 | | | | 55 | | | | 60 | | | | | | |
| Gln | Arg | Arg | Asn | Pro | His | Glu | Gln | Arg | Phe | Ser | Gln | Gln | Thr | Pro | Tyr |
| 65 | | | | 70 | | | | 75 | | | | | | 80 | |
| Asp | Ala | Gly | Ser | Arg | Ala | Phe | Gln | Cys | Arg | | | | | | |
| | | | 85 | | | | | 90 | | | | | | | |

<210> 649
 <211> 563
 <212> DNA
 <213> Homo sapiens

<400> 649
 cgcaacatgc ataaacacat gtgtcctccc gagactcagc tacttccttt gccctctctg
 60
 gacctcagtg tccaggcttg tgcatttagg ggctcagggt tgggctctgt gcctatgagc
 120
 cagtctatgt gtgcactgtc tgtctgtctg tccgtctgcc agcaaccttc aaggccccag
 180
 gaggggaagg caccaatgga aggtgggggc aggggaaggag gtagcgttga caagttccaa
 240
 tgtctggctt tccctcctgg aaaccccag ctggggctgg ccccccttc ccttcctgtc
 300
 tctctcgctc aagcagctcc cttctaagag cccctctctg cagacgcccc cagtgggaacc
 360
 aagcctagat tcgctgccaa gaaggccgac attttttaga cttgccacgt taaaggggccc
 420
 tgcacaggca cgcactcaaa tccccccctc catgtcctcc gcctgtgcac attcaggcaa
 480
 cccgaaacac acaaagacac ggttggacac agcggccacc tgtgcacaca ggaggttagca
 540
 catggagcgc atctgacccc ggg
 563

<210> 650
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 650
 Met His Lys His Met Cys Ser Ser Glu Thr Gln Leu Leu Pro Leu Pro
 1 5 10 15
 Ser Leu Asp Leu Ser Val Gln Ala Cys Ala Phe Arg Gly Ser Gly Leu
 20 25 30
 Gly Ser Val Pro Met Ser Gln Ser Met Cys Ala Leu Ser Val Cys Leu
 35 40 45
 Ser Val Cys Gln Gln Pro Ser Arg Pro Gln Glu Gly Lys Ala Pro Met
 50 55 60
 Glu Gly Gly Gly Arg Glu Gly Gly Ser Val Asp Lys Phe Gln Cys Leu
 65 70 75 80
 Ala Phe Pro Pro Gly Asn Pro Glu Leu Gly Leu Ala Pro Pro Ser Leu
 85 90 95
 Pro Val Ser Leu Ala Gln Ala Arg Pro Phe
 100 105

<210> 651
 <211> 351
 <212> DNA
 <213> Homo sapiens

<400> 651

gaattcttca acaagctctc ctgctctagg atcaaggata gacctataca aggtccaaac
 60
 cataatggag tccatgggggt caaagttatc tcctggagct cagcagttga tggatatggg
 120
 taggtgtcag cagcggaatt gtattcccat tggagagcag cttcagtcgg tgttggggcaa
 180
 ttctggatac aagcatatga ttggactaca atcctcatct accttaggaa ccttaaacia
 240
 gtcgtcctcc acaccttttc cttttagaac tggattgaca tctgggaacg tgactgaaaa
 300
 cttacaagcg tacattgata aaagtacaca actgcctggg ggagagaatt c
 351

<210> 652

<211> 95

<212> PRT

<213> Homo sapiens

<400> 652

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Glu | Ser | Met | Gly | Ser | Lys | Leu | Ser | Pro | Gly | Ala | Gln | Gln | Leu | Met |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Asp | Met | Val | Arg | Cys | Gln | Gln | Arg | Asn | Cys | Ile | Pro | Ile | Gly | Glu | Gln |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Gln | Ser | Val | Leu | Gly | Asn | Ser | Gly | Tyr | Lys | His | Met | Ile | Gly | Leu |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Gln | Ser | Ser | Ser | Thr | Leu | Gly | Thr | Leu | Asn | Lys | Ser | Ser | Ser | Thr | Pro |
| | | | 50 | | | 55 | | | | | 60 | | | | |
| Phe | Pro | Phe | Arg | Thr | Gly | Leu | Thr | Ser | Gly | Asn | Val | Thr | Glu | Asn | Leu |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Gln | Ala | Tyr | Ile | Asp | Lys | Ser | Thr | Gln | Leu | Pro | Gly | Gly | Glu | Asn | |
| | | | | 85 | | | | 90 | | | | | | 95 | |

<210> 653

<211> 399

<212> DNA

<213> Homo sapiens

<400> 653

nncccggtg gggctgggggt ggggccagca tcagaggagg acatgaccaa gctgtgcaac
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 caccggcgga aagctgttgc tatggcaact ctgtaccgca gcatggagac cacctgtc
 120
 cactcttctc ctggagagggg agcgagcccc caaatgttcc acactgtgtc cccagggccc
 180
 cctctgccc gccctccctg tcgagttcct cctacaactc cacttaatgg gggctctggc
 240
 tccttcccc cagaaccacc ctcagtttcc caggccttcc ccactctagc aggccctggg
 300
 gggcttttcc cccaagget tgetgacca gtcccttctg ggggcagtag cagcccccg
 360
 ttcttcccaa ggggcaatgc cccctctcca gccccact
 399

<210> 654

<211> 133
 <212> PRT
 <213> Homo sapiens

<400> 654
 Xaa Pro Gly Gly Ala Gly Val Gly Pro Ala Ser Glu Glu Asp Met Thr
 1 5 10 15
 Lys Leu Cys Asn His Arg Arg Lys Ala Val Ala Met Ala Thr Leu Tyr
 20 25 30
 Arg Ser Met Glu Thr Thr Cys Ser His Ser Ser Pro Gly Glu Gly Ala
 35 40 45
 Ser Pro Gln Met Phe His Thr Val Ser Pro Gly Pro Pro Ser Ala Arg
 50 55 60
 Pro Pro Cys Arg Val Pro Pro Thr Thr Pro Leu Asn Gly Gly Pro Gly
 65 70 75 80
 Ser Leu Pro Pro Glu Pro Pro Ser Val Ser Gln Ala Phe Pro Thr Leu
 85 90 95
 Ala Gly Pro Gly Gly Leu Phe Pro Pro Arg Leu Ala Asp Pro Val Pro
 100 105 110
 Ser Gly Gly Ser Ser Ser Pro Arg Phe Leu Pro Arg Gly Asn Ala Pro
 115 120 125
 Ser Pro Ala Pro Pro
 130

<210> 655
 <211> 368
 <212> DNA
 <213> Homo sapiens

<400> 655
 tgaaggaaat tctctatggc ttgtgttcat catgtagaac agcccatgag gagaatagga
 60
 gatgaggtgg gaagtgcact gggatctggg ggaagaagcc cggggttcaa gactcagcta
 120
 ctgactgcat ggtgtcaaag gattcggggca tcctctctga ggctgagtct tcagatgaca
 180
 gtgagaacag ggacacctgc cctgcccttc tcacggggcg tgtgggcacc catgagcatg
 240
 cttgacaaat gcaaggtgcc atacaaacag gaactgcaca atctcaccgc ccggcctact
 300
 cagcattggt atttttacct ttacatctat atgaagatgt agttccattc cttttaactg
 360
 ttgttttc
 368

<210> 656
 <211> 108
 <212> PRT
 <213> Homo sapiens

<400> 656
 Met Ala Cys Val His His Val Glu Gln Pro Met Arg Arg Ile Gly Asp
 1 5 10 15
 Glu Val Gly Ser Ala Leu Gly Ser Gly Gly Arg Ser Pro Gly Phe Lys

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 20 | | 25 | | 30 | | | | | | | | | | |
| Thr | Gln | Leu | Leu | Thr | Ala | Trp | Cys | Gln | Arg | Ile | Arg | Ala | Ser | Ser | Leu |
| | 35 | | | | | | 40 | | | | | 45 | | | |
| Arg | Leu | Ser | Leu | Gln | Met | Thr | Val | Arg | Thr | Gly | Thr | Pro | Ala | Leu | Pro |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Phe | Ser | Arg | Gly | Val | Trp | Ala | Pro | Met | Ser | Met | Leu | Asp | Lys | Cys | Lys |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Val | Pro | Tyr | Lys | Gln | Glu | Leu | His | Asn | Leu | Thr | Ala | Arg | Pro | Thr | Gln |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| His | Cys | Tyr | Phe | Tyr | Leu | Tyr | Ile | Tyr | Met | Lys | Met | | | | |
| | | | 100 | | | | | 105 | | | | | | | |

<210> 657

<211> 330

<212> DNA

<213> Homo sapiens

<400> 657

gtcgaccacg gcatgaaaaa gccggggatg atcctcatca acaaccctg gggcgagtcc
60aacgaggcgg gcttcaagcg cgcctcgaa gagcgtggca tggccaacgc cggtgtcgag
120cgtattcagg acagcgacct ggacgtgggt cgcgaattga cccgcctga aaaacgccg
180tgccgacacc ttgtgatgg tggcaacgt cggccttcg gcacaggtgg tcaagtcct
240ggaccgcatg ggttgggacg tgctgtggt gtctcactgg gggccggccg gnggtcgctt
300tggcgagctg gcggggccta acgttctcg
330

<210> 658

<211> 102

<212> PRT

<213> Homo sapiens

<400> 658

Met Lys Lys Pro Gly Met Ile Leu Ile Asn Asn Pro Trp Gly Glu Ser
1 5 10 15Asn Glu Ala Gly Phe Lys Arg Ala Leu Glu Glu Arg Gly Met Ala Asn
20 25 30Ala Gly Val Glu Arg Ile Gln Asp Ser Asp Leu Asp Val Val Pro Gln
35 40 45Leu Thr Pro Pro Glu Lys Arg Arg Cys Arg His Leu Ala Asp Gly Arg
50 55 60Gln Arg Arg Pro Phe Gly Thr Gly Gly Gln Val Pro Gly Pro His Gly
65 70 75 80Leu Gly Arg Ala Cys Gly Val Ser Leu Gly Ala Gly Arg Xaa Ser Leu
85 90 95Trp Arg Ala Gly Gly Ala
100

<210> 659

<211> 1505

<212> DNA

<213> Homo sapiens

<400> 659

gccaggatca tgtccaccac cacatgccaa gtgggtggcgt tcctcctgtc catcctgggg
60
ctggccggct gcatcgcggc caccgggatg gacatgtgga gcaccagga cctgtacgac
120
aaccctgtca cctccgtgtt ccagtacgaa gggctctgga ggagctgctg gaggcagagt
180
tcaggcttca ccgaatgcag gccctatttc accatcctgg gacttccagc catgctgcag
240
gcagtgcgag ccctgatgat cgtaggcac gtccctgggtg ccattggcct cctggtatcc
300
atctttgccc tgaaatgcat ccgcattggc agcatggagg actctgccaa agccaacatg
360
acactgacct ccgggatcat gttcattgtc tcaggctctt gtgcaattgc tggagtgtct
420
gtgtttgcca acatgctggt gactaacttc tggatgtcca cagctaacat gtacaccggc
480
atgggtggga tgggtgcagac tgttcagacc aggtacacat ttgggtgcggc tctgttcgtg
540
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840
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1200
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1260
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1320
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1380
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1505

<210> 660
<211> 261
<212> PRT
<213> Homo sapiens

<400> 660
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20 25 30
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35 40 45
Leu Trp Arg Ser Cys Val Arg Gln Ser Ser Gly Phe Thr Glu Cys Arg
50 55 60
Pro Tyr Phe Thr Ile Leu Gly Leu Pro Ala Met Leu Gln Ala Val Arg
65 70 75 80
Ala Leu Met Ile Val Gly Ile Val Leu Gly Ala Ile Gly Leu Leu Val
85 90 95
Ser Ile Phe Ala Leu Lys Cys Ile Arg Ile Gly Ser Met Glu Asp Ser
100 105 110
Ala Lys Ala Asn Met Thr Leu Thr Ser Gly Ile Met Phe Ile Val Ser
115 120 125
Gly Leu Cys Ala Ile Ala Gly Val Ser Val Phe Ala Asn Met Leu Val
130 135 140
Thr Asn Phe Trp Met Ser Thr Ala Asn Met Tyr Thr Gly Met Gly Gly
145 150 155 160
Met Val Gln Thr Val Gln Thr Arg Tyr Thr Phe Gly Ala Ala Leu Phe
165 170 175
Val Gly Trp Val Ala Gly Gly Leu Thr Leu Ile Gly Gly Val Met Met
180 185 190
Cys Ile Ala Cys Arg Gly Leu Ala Pro Glu Glu Thr Asn Tyr Lys Ala
195 200 205
Val Ser Tyr His Ala Ser Gly His Ser Val Ala Tyr Lys Pro Gly Gly
210 215 220
Phe Lys Ala Ser Thr Gly Phe Gly Ser Asn Thr Lys Asn Lys Lys Ile
225 230 235 240
Tyr Asp Gly Gly Ala Arg Thr Glu Asp Glu Val Gln Ser Tyr Pro Ser
245 250 255
Lys His Asp Tyr Val
260

<210> 661
<211> 451
<212> DNA
<213> Homo sapiens

<400> 661
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120

gacaaggcat tatgtgccca gactgatccg gaggcattct tccctgaaaa gggtaggatcc
 180
 acccgtgagg ccaagcgcat ctgtgagtc tgtgaggtcc gccaggagt cttggagtag
 240
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 300
 cggctgcca agcgggcgtg acctgacgtc ggagcgcggg tattgacacg gcccggtaaa
 360
 atgccctgtc tgcccgggat ggctgtctgc acgatgcggc atatgcatg atcgacagc
 420
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 451

<210> 662

<211> 85

<212> PRT

<213> Homo sapiens

<400> 662

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Asp | Glu | Ile | Leu | Thr | Leu | Leu | Ala | Gly | Gly | Gly | Asp | Asp | Glu | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Glu | Trp | His | Asp | Lys | Ala | Leu | Cys | Ala | Gln | Thr | Asp | Pro | Glu | Ala | Phe |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Phe | Pro | Glu | Lys | Gly | Gly | Ser | Thr | Arg | Glu | Ala | Lys | Arg | Ile | Cys | Glu |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Ser | Cys | Glu | Val | Arg | Gln | Glu | Cys | Leu | Glu | Tyr | Ala | Leu | Ala | Asn | Asp |
| | | 50 | | | | 55 | | | | 60 | | | | | |
| Glu | Arg | Phe | Gly | Ile | Trp | Gly | Gly | Leu | Ser | Glu | Met | Glu | Arg | Arg | Arg |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Leu | Arg | Lys | Arg | Ala | | | | | | | | | | | |
| | | | | 85 | | | | | | | | | | | |

<210> 663

<211> 552

<212> DNA

<213> Homo sapiens

<400> 663

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 120
 gctcgtaagg gcattcgac cgccatggtc gggctctcga tcggcggcca ggtactcgat
 180
 accgaggcca tcgacaacct catctcgggt ccgcacacca ccggtccgcg tctggccgac
 240
 gccctccgca gccacgtcaa cgactacaac attgacgtta ttgagcgtca gaccgccagc
 300
 gccatagaga ccaccggcgg tatgaccacc gtgcatctga ccgacggcga cctgcgggcg
 360
 cgctcagtca tcgtggccac cgggtcccgc tggcgcaacc ttggcgtacc tggcgaggag
 420
 gaataccgca ccaaggggtg gacctactgc ccgactgcg atggcccgtc attcacaggc
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aaaaaggtgg cgcgcgtcgg aggtggaaac tccggtattg aggcgcgtat cgacctcgcc
 540
 ggcgcgtcgc ac
 552

<210> 664
 <211> 184
 <212> PRT
 <213> Homo sapiens

<400> 664
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 Ser Gln Arg Asp Pro Tyr Asp Val Leu Val Val Gly Ala Gly Pro Ala
 20 25 30
 Gly Ala Ala Ala Ala Val Tyr Ala Ala Arg Lys Gly Ile Arg Thr Ala
 35 40 45
 Met Val Gly Ser Arg Ile Gly Gly Gln Val Leu Asp Thr Glu Ala Ile
 50 55 60
 Asp Asn Leu Ile Ser Val Pro His Thr Thr Gly Pro Arg Leu Ala Asp
 65 70 75 80
 Ala Leu Arg Ser His Val Asn Asp Tyr Asn Ile Asp Val Ile Glu Arg
 85 90 95
 Gln Thr Ala Ser Ala Ile Glu Thr Thr Gly Gly Met Thr Thr Val His
 100 105 110
 Leu Thr Asp Gly Asp Leu Arg Ala Arg Ser Val Ile Val Ala Thr Gly
 115 120 125
 Ala Arg Trp Arg Asn Leu Gly Val Pro Gly Glu Glu Glu Tyr Arg Thr
 130 135 140
 Lys Gly Val Thr Tyr Cys Pro His Cys Asp Gly Pro Leu Phe Thr Gly
 145 150 155 160
 Lys Lys Val Ala Val Val Gly Gly Gly Asn Ser Gly Ile Glu Ala Ala
 165 170 175
 Ile Asp Leu Ala Gly Val Val Asp
 180

<210> 665
 <211> 352
 <212> DNA
 <213> Homo sapiens

<400> 665
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 acacgctctt catttcgccc ggcagcagtt cggcgccggc gcagacaaag gtccaggcct
 120
 cgetcacgcg gtggccccgg ccagcggctt ttccaggatc tcgaaacgca ggtcgcgcg
 180
 cttggggatg ccgaatcggt cgtcgccata cgggaacggc ttcttgatgc cgggtgcgcag
 240
 gtagccgcgg cgetcgtaga agcgatcaga tcgcgcgcac gtcgatcact gtcattctgca
 300
 ttaccggcac gttccattcg cgcgcggcgt gggcttcggc ggcgtccatc aa
 352

<210> 666
 <211> 105
 <212> PRT
 <213> Homo sapiens

<400> 666
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 Leu Ile Ala Ser Thr Ser Ala Ala Ala Thr Cys Ala Pro Ala Ser Arg
 20 25 30
 Ser Arg Ser Arg Met Ala Thr Asn Asp Ser Ala Ser Pro Ser Ala Thr
 35 40 45
 Thr Cys Val Ser Arg Ser Trp Lys Ser Arg Trp Pro Gly Pro Pro Arg
 50 55 60
 Glu Arg Gly Leu Asp Leu Cys Leu Arg Arg Arg Arg Thr Ala Ala Gly
 65 70 75 80
 Arg Asn Glu Glu Arg Val Arg Arg Ser Asp Arg Tyr Thr Asp Arg Gly
 85 90 95
 Val Gln Pro Arg Arg Arg Thr Val Arg
 100 105

<210> 667
 <211> 391
 <212> DNA
 <213> Homo sapiens

<400> 667
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 120
 gccgtgttgt cgcgcattctg cgaaccggaa cgccagatca ttttcgggt gccgtgggtt
 180
 gacgacgagg gcaagatccg tatcaaccgt ggcttcgcg ttgaatattc gtcggtactg
 240
 gggccgtata aggggtggatt gcgattccac ccctcgggtgt acttaggaac gattaagttc
 300
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 360
 ggtgggtcgg actttgatcc ccatgacgcg t
 391

<210> 668
 <211> 130
 <212> PRT
 <213> Homo sapiens

<400> 668
 Xaa Ala Tyr Glu Ser Val Leu Arg Arg Asn Pro Gly Glu Ala Glu Phe
 1 5 10 15
 His Gln Ala Val Arg Glu Ile Phe Glu Ser Leu Gly Pro Val Leu Asp
 20 25 30
 Lys Asn Pro Gln Tyr Val Glu Ala Ala Val Leu Ser Arg Ile Cys Glu

| | | |
|---|-----|-----|
| 35 | 40 | 45 |
| Pro Glu Arg Gln Ile Ile Phe Arg Val Pro Trp Val Asp Asp Glu Gly | | |
| 50 | 55 | 60 |
| Lys Ile Arg Ile Asn Arg Gly Phe Arg Val Glu Tyr Ser Ser Val Leu | | |
| 65 | 70 | 75 |
| Gly Pro Tyr Lys Gly Gly Leu Arg Phe His Pro Ser Val Tyr Leu Gly | | 80 |
| | 85 | 90 |
| Thr Ile Lys Phe Leu Gly Phe Glu Gln Ile Phe Lys Asn Ala Leu Thr | | 95 |
| | 100 | 105 |
| Gly Met Pro Ile Gly Gly Ala Lys Gly Gly Ser Asp Phe Asp Pro His | | 110 |
| | 115 | 120 |
| Asp Ala | | 125 |
| 130 | | |

<210> 669

<211> 707

<212> DNA

<213> Homo sapiens

<400> 669

```

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120
actgacgttc acgcgaccag cgacgggggtg ctagtggcct tccacgatcc gatactcgat
180
cgcgtcactg aatcaggcgg agtcatcgcc gccatgccgt ggcacaagggt caaacaagcc
240
aagggttggtg gcgaaccgat ccccacctta gatgagattt tcgacgcctt tcccgcgcg
300
ttcatcaata tcgacatcaa gcatgatggc gccaccatgc cgctcatcga cgttctttcc
360
cgtcaccggg cttggagtcg ggtttgcgtc gggtcgttca gcagtaaacy catccagacc
420
ttcgcgcgcc tggttcaggg acgcactgcg actgcagtgg ggtcgggtggg agtcnnnggt
480
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540
tgccgcaccg cttgaccggg tnatgggggtg ccccttgatga caccgacctt cattaaagct
600
gcccatcgtc aggggagagc tgttcatgtc tggacgggta atgagatctc tgaggctcga
660
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707

```

<210> 670

<211> 170

<212> PRT

<213> Homo sapiens

<400> 670

| |
|---|
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| 1 5 10 15 |
| Ala Val Glu Val Gly Cys Thr Tyr Leu Glu Thr Asp Val His Ala Thr |

```

      20      25      30
Ser Asp Gly Val Leu Val Ala Phe His Asp Pro Ile Leu Asp Arg Val
      35      40      45
Thr Glu Ser Gly Gly Val Ile Ala Ala Met Pro Trp His Lys Val Lys
      50      55      60
Gln Ala Lys Val Gly Gly Glu Pro Ile Pro Thr Leu Asp Glu Ile Phe
      65      70      75      80
Asp Ala Phe Pro Asp Ala Phe Ile Asn Ile Asp Ile Lys His Asp Gly
      85      90      95
Ala Thr Met Pro Leu Ile Asp Val Leu Ser Arg His Arg Ala Trp Ser
      100      105      110
Arg Val Cys Val Gly Ser Phe Ser Ser Lys Arg Ile Gln Thr Phe Arg
      115      120      125
Arg Leu Val Gln Gly Arg Thr Ala Thr Ala Val Gly Ser Val Gly Val
      130      135      140
Xaa Ala Gly Leu Ser Ser Ala Leu Ile Ala Cys Arg Trp His Ser Pro
      145      150      155      160
Met Gly Met Arg Thr Arg Cys Arg Thr Ala
      165      170

```

<210> 671
 <211> 444
 <212> DNA
 <213> Homo sapiens

<400> 671
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 gtgctggaga gggatctggt tatctccatt ctcttgtctc cacgtggaaa ggaaggacgt
 180
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 240
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 300
 ccaccaggg tgccatttgc tgggcgcctt agggagctgc gtgggcatcc agaggagtga
 360
 gtcgccccct gctctgtctc gtgccactt ccccgggcag ggcaggcggtt attaacgtag
 420
 agggagaaca cccatgcaca caac
 444

<210> 672
 <211> 103
 <212> PRT
 <213> Homo sapiens

<400> 672
 Met Gly Ser Glu Gly Asp Gly Thr Cys Arg Lys Gly Pro Ala Ala Gln
 1 5 10 15
 Ser Met Gly Arg Pro Trp Leu Thr Thr Pro Ala Ala Val Asn Ser Phe
 20 25 30
 Ser Gly Ala Gly Glu Gly Ser Gly Tyr Leu His Ser Leu Val Ser Thr

```

          35          40          45
Trp Lys Gly Arg Thr Cys Ala Leu Ile Leu Arg Val Leu Arg Asn Arg
  50          55          60
Ile Val Pro Ser Ser Ala Gly Gly Ser Gly Asp Ala Val Gly Asn Gln
65          70          75          80
Thr Gly Ser Trp Arg Ser Ser Ala Arg Gln Lys Pro Val Pro Thr Gln
          85          90          95
Gly Ala Ile Cys Trp Ala Pro
          100

```

<210> 673
 <211> 452
 <212> DNA
 <213> Homo sapiens

```

<400> 673
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120
gccgcggtcc ctgatgcgga caaactcggc caccacgata agcctgacgc ttgcggacca
180
acgttcaaact actgtgcact tgaaacgtcc gggccgcata acctgggtga ctttgtgcga
240
ccgacattac ttatgttcac gctctttcag ttcttgtcaa taccgtattt ttgctcgacg
300
tctccatcag aaaaatgtcg gtgttaccgc accgcagacg atgcgtaccc ttgcgctgac
360
gatggaggcc ttgaaaagtg cattagccac tactgggcga atctacggca aaaagctgtt
420
actaggcggg gattggggag gcccgtagtg gc
452

```

<210> 674
 <211> 134
 <212> PRT
 <213> Homo sapiens

```

<400> 674
Met Trp Gln Gly Met His Arg Glu Ser Leu Gln Val Cys Arg Ser Lys
  1          5          10          15
Thr Ala Arg Leu Leu Lys Phe Ala Val Val Pro Arg Ser Leu Met Arg
          20          25          30
Thr Asn Ser Ala Thr Thr Ile Ser Leu Thr Leu Ala Asp Gln Arg Ser
          35          40          45
Asn Thr Val His Leu Lys Arg Pro Gly Arg Ile Thr Trp Val Thr Leu
          50          55          60
Cys Asp Arg His Tyr Leu Cys Ser Arg Ser Phe Ser Ser Cys Gln Tyr
65          70          75          80
Arg Ile Phe Arg Arg Arg Leu His Gln Lys Asn Val Gly Val Thr Ala
          85          90          95
Pro Gln Thr Met Arg Thr Leu Ala Leu Thr Met Glu Ala Leu Lys Ser
          100          105          110
Ala Leu Ala Thr Thr Gly Arg Ile Tyr Gly Lys Lys Leu Leu Leu Gly

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115
Gly Asp Trp Gly Gly Pro
130

120

125

<210> 675

<211> 8564

<212> DNA

<213> Homo sapiens

<400> 675

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ccccacagcc ttctctaccc agtgcagatc gcccggaacgc acacggacgt cgggctcctg
120
gagtaccagc accactcccc cgactatgcc tcccacctgt cgccgggctc catcatccag
180
ccccagcggc ggagggcctc cctgctgtct gagttccagc ccgggaatga acgggtcccag
240
gagctccacc tgcggccaga gtccactca tacctgcccc agctggggaa gtcagagatg
300
gagttcattg aaagcaagcg ccctcggcta gagctgctgc ctgacccccct gctgcgaccg
360
tcacccctgc tggccacggg ccagcctgcg ggatctgaag acctcaccaa ggaccgtagc
420
ctgacgggca agctggaacc ggtgtctccc ccagcccc cgcacactga ccctgagctg
480
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780
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<213> Homo sapiens

<400> 676

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| Pro | Arg | Tyr | Pro | Pro | His | Ser | Leu | Ser | Tyr | Pro | Val | Gln | Ile | Ala | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | His | Thr | Asp | Val | Gly | Leu | Leu | Glu | Tyr | Gln | His | His | Ser | Arg | Asp |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Tyr | Ala | Ser | His | Leu | Ser | Pro | Gly | Ser | Ile | Ile | Gln | Pro | Gln | Arg | Arg |
| | 50 | | | | | 55 | | | | 60 | | | | | |
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| Glu | Leu | His | Leu | Arg | Pro | Glu | Ser | His | Ser | Tyr | Leu | Pro | Glu | Leu | Gly |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Lys | Ser | Glu | Met | Glu | Phe | Ile | Glu | Ser | Lys | Arg | Pro | Arg | Leu | Glu | Leu |
| | | | 100 | | | | 105 | | | | | 110 | | | |
| Leu | Pro | Asp | Pro | Leu | Leu | Arg | Pro | Ser | Pro | Leu | Leu | Ala | Thr | Gly | Gln |
| | | 115 | | | | 120 | | | | | | 125 | | | |
| Pro | Ala | Gly | Ser | Glu | Asp | Leu | Thr | Lys | Asp | Arg | Ser | Leu | Thr | Gly | Lys |
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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|-----|--|--|-----|--|--|
| | | | | | | | | | | | | | | | 165 | | | 170 | | | 175 | | |
| Asp | Arg | Val | Asp | Arg | Glu | Ile | Thr | Met | Val | Glu | Gln | Gln | Ile | Ser | Lys | | | | | | | | |
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| Leu | Lys | Lys | Lys | Gln | Gln | Gln | Leu | Glu | Glu | Glu | Ala | Ala | Lys | Pro | Pro | | | | | | | | |
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| Thr 785 | Pro | Pro | Arg | Arg | Thr | Ser 790 | Arg | Ala | Pro | Ile | Glu | Pro | Thr | Pro | Ala 800 | |
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| Ala | Ala | Ala | Pro | Pro | Val | Glu 835 | Glu | Gly | Glu | Glu | Gln | Lys | Pro | Pro | Ala 845 | |
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| 1730 | 1735 | 1740 |
| Val Pro Pro Thr Pro Gly Thr Pro Ala Thr Ala Met Asp Arg Leu Ala | | |
| 1745 | 1750 | 1755 |
| Tyr Leu Pro Thr Ala Pro Gln Pro Phe Ser Ser Arg His Ser Ser Ser | | |
| 1765 | 1770 | 1775 |
| Pro Leu Ser Pro Gly Gly Pro Thr His Leu Thr Lys Pro Thr Thr Thr | | |
| 1780 | 1785 | 1790 |
| Ser Ser Ser Glu Arg Glu Arg Asp Arg Asp Arg Glu Arg Asp Arg Asp | | |
| 1795 | 1800 | 1805 |
| Arg Glu Arg Glu Lys Ser Ile Leu Thr Ser Thr Thr Thr Val Glu His | | |
| 1810 | 1815 | 1820 |
| Ala Pro Ile Trp Arg Pro Gly Thr Glu Gln Ser Ser Gly Ser Ser Gly | | |
| 1825 | 1830 | 1835 |
| Ser Ser Gly Gly Gly Gly Ser Ser Ser Arg Pro Ala Ser His Ser | | |
| 1845 | 1850 | 1855 |
| His Ala His Gln His Ser Pro Ile Ser Pro Arg Thr Gln Asp Ala Leu | | |
| 1860 | 1865 | 1870 |
| Gln Gln Arg Pro Ser Val Leu His Asn Thr Gly Met Lys Gly Ile Ile | | |
| 1875 | 1880 | 1885 |
| Thr Ala Val Glu Pro Ser Thr Pro Thr Val Leu Arg Ser Thr Ser Thr | | |

| 1890 | | | | | 1895 | | | | | 1900 | | | | | |
|----------|------|------|------|------|----------|------|------|------|------|----------|------|-----|------|------|------|
| Ser 1905 | Ser | Pro | Val | Arg | Pro 1910 | Ala | Ala | Thr | Phe | Pro 1915 | Pro | Ala | Thr | His | Cys |
| Pro | Leu | Gly | Gly | Thr | Leu | Asp | Gly | Val | Tyr | Pro | Thr | Leu | Met | Glu | Pro |
| | | | | 1925 | | | | | 1930 | | | | | 1935 | |
| Val | Leu | Leu | Pro | Lys | Glu | Ala | Pro | Arg | Val | Ala | Arg | Pro | Glu | Arg | Pro |
| | | | 1940 | | | | | 1945 | | | | | 1950 | | |
| Arg | Ala | Asp | Thr | Gly | His | Ala | Phe | Leu | Ala | Lys | Pro | Pro | Ala | Arg | Ser |
| | | 1955 | | | | | 1960 | | | | | | 1965 | | |
| Gly | Leu | Glu | Pro | Ala | Ser | Ser | Pro | Ser | Lys | Gly | Ser | Glu | Pro | Arg | Pro |
| | 1970 | | | | | 1975 | | | | | 1980 | | | | |
| Leu | Val | Pro | Pro | Val | Ser | Gly | His | Ala | Thr | Ile | Ala | Arg | Thr | Pro | Ala |
| 1985 | | | | 1990 | | | | | | 1995 | | | | | 2000 |
| Lys | Asn | Leu | Ala | Pro | His | His | Ala | Ser | Pro | Asp | Pro | Pro | Ala | Pro | Pro |
| | | | 2005 | | | | | | 2010 | | | | | 2015 | |
| Ala | Ser | Ala | Ser | Asp | Pro | His | Arg | Glu | Lys | Thr | Gln | Ser | Lys | Pro | Phe |
| | | | 2020 | | | | | 2025 | | | | | 2030 | | |
| Ser | Ile | Gln | Glu | Leu | Glu | Leu | Arg | Ser | Leu | Gly | Tyr | His | Gly | Ser | Ser |
| | 2035 | | | | | 2040 | | | | | 2045 | | | | |
| Tyr | Ser | Pro | Glu | Gly | Val | Glu | Pro | Val | Ser | Pro | Val | Ser | Ser | Pro | Ser |
| | 2050 | | | | | 2055 | | | | | 2060 | | | | |
| Leu | Thr | His | Asp | Lys | Gly | Leu | Pro | Lys | His | Leu | Glu | Glu | Leu | Asp | Lys |
| 2065 | | | | 2070 | | | | | | 2075 | | | | | 2080 |
| Ser | His | Leu | Glu | Gly | Glu | Leu | Arg | Pro | Lys | Gln | Pro | Gly | Pro | Val | Lys |
| | | | 2085 | | | | | | 2090 | | | | | 2095 | |
| Leu | Gly | Gly | Glu | Ala | Ala | His | Leu | Pro | His | Leu | Arg | Pro | Leu | Pro | Glu |
| | | | 2100 | | | | | 2105 | | | | | 2110 | | |
| Ser | Gln | Pro | Ser | Ser | Ser | Pro | Leu | Leu | Gln | Thr | Ala | Pro | Gly | Val | Lys |
| | 2115 | | | | | 2120 | | | | | 2125 | | | | |
| Gly | His | Gln | Arg | Val | Val | Thr | Leu | Ala | Gln | His | Ile | Ser | Glu | Val | Ile |
| | 2130 | | | | | 2135 | | | | | 2140 | | | | |
| Thr | Gln | Asp | Tyr | Thr | Arg | His | His | Pro | Gln | Gln | Leu | Ser | Ala | Pro | Leu |
| 2145 | | | | 2150 | | | | | 2155 | | | | | 2160 | |
| Pro | Ala | Pro | Leu | Tyr | Ser | Phe | Pro | Gly | Ala | Ser | Cys | Pro | Val | Leu | Asp |
| | | | 2165 | | | | | 2170 | | | | | | 2175 | |
| Leu | Arg | Arg | Pro | Pro | Ser | Asp | Leu | Tyr | Leu | Pro | Pro | Pro | Asp | His | Gly |
| | | | 2180 | | | | | 2185 | | | | | 2190 | | |
| Ala | Pro | Ala | Arg | Gly | Ser | Pro | His | Ser | Glu | Gly | Gly | Lys | Arg | Ser | Pro |
| | 2195 | | | | | 2200 | | | | | 2205 | | | | |
| Glu | Pro | Asn | Lys | Thr | Ser | Val | Leu | Gly | Gly | Gly | Glu | Asp | Gly | Ile | Glu |
| | 2210 | | | | | 2215 | | | | | 2220 | | | | |
| Pro | Val | Ser | Pro | Pro | Glu | Gly | Met | Thr | Glu | Pro | Gly | His | Ser | Arg | Ser |
| 2225 | </ | | | | | | | | | | | | | | |

[illegible]

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<210> 677
<211> 345
<212> DNA
<213> Homo sapiens
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<400> 677
gtaatgcaag gtgaacgccc aatggctgcg cagaacaaga gcattggtca gttcaccctt
60
gagggtatag ctccggcacg ccggtggtgtt ccacagattg aagttacttt cgatatcgat
120
gccaacggta tcttgaatgt gagcgcaaag gataaggcta ccggttaagga acagaagatt
180
cgcatcgaag cttcaagtgg tttgagtcag gaagaaatcg acagaatgaa agctgaggca
240
gaacagaatg cagcagcagg caaggctgaa cgcgaaaaga ttgataagct gaaccaagct
300
gactcaatga tttccccccc cgaaaactcc tgaaagacaa cgatn
345
```

```
<210> 678
<211> 110
<212> PRT
<213> Homo sapiens
```

```
<400> 678
Val Met Gln Gly Glu Arg Pro Met Ala Ala Gln Asn Lys Ser Ile Gly
 1             5             10             15
Gln Phe Thr Leu Glu Gly Ile Ala Pro Ala Arg Arg Gly Val Pro Gln
```

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 20 | | 25 | | 30 | | | | | | | | | | |
| Ile | Glu | Val | Thr | Phe | Asp | Ile | Asp | Ala | Asn | Gly | Ile | Leu | Asn | Val | Ser |
| | 35 | | | | | | 40 | | | | | 45 | | | |
| Ala | Lys | Asp | Lys | Ala | Thr | Gly | Lys | Glu | Gln | Lys | Ile | Arg | Ile | Glu | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Ser | Gly | Leu | Ser | Gln | Glu | Glu | Ile | Asp | Arg | Met | Lys | Ala | Glu | Ala |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Glu | Gln | Asn | Ala | Ala | Ala | Gly | Lys | Ala | Glu | Arg | Glu | Lys | Ile | Asp | Lys |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Leu | Asn | Gln | Ala | Asp | Ser | Met | Ile | Ser | Pro | Pro | Glu | Asn | Ser | | |
| | | | 100 | | | | | 105 | | | | | 110 | | |

<210> 679

<211> 362

<212> DNA

<213> Homo sapiens

<400> 679

acgcgtgacg tcaccgctcc atggggaaga tgacgactat ccctgtgaaa gtaaagcata
60atgggaaaaa tgtacgttaa atgtgctaac gcgcagtatg atgtatctat gaatcttgag
120ggtacaggcc tggatttcaa gcgtgccatt gctgacgtca cgcattgtgcc acccgaacgc
180caaaaagtac tcatcaaggg aggattgcta aaagacgata cccattagg taaagtgggt
240gcgcgtgcag gacagcagtt catggtgctg ggtgctgtgg gtgagctgcc caaggcccca
300gaaaaacctg tgctgttcct ggaggatttg ccggaagacg agctcaacaa ggctaaggat
360

cc

362

<210> 680

<211> 100

<212> PRT

<213> Homo sapiens

<400> 680

Met Gly Lys Met Tyr Val Lys Cys Ala Asn Ala Gln Tyr Asp Val Ser
1 5 10 15Met Asn Leu Glu Gly Thr Gly Leu Asp Phe Lys Arg Ala Ile Ala Asp
20 25 30Val Thr His Val Pro Pro Glu Arg Gln Lys Val Leu Ile Lys Gly Gly
35 40 45Leu Leu Lys Asp Asp Thr Pro Leu Gly Lys Val Gly Ala Arg Ala Gly
50 55 60Gln Gln Phe Met Val Leu Gly Ala Val Gly Glu Leu Pro Lys Ala Pro
65 70 75 80Glu Lys Pro Val Leu Phe Leu Glu Asp Leu Pro Glu Asp Glu Leu Asn
85 90 95Lys Ala Lys Asp
100

<210> 681
 <211> 357
 <212> DNA
 <213> Homo sapiens

<400> 681
 acgctccaa atggacaaac gcttgatgat ttctaccatg aaattagagc aaaatatcca
 60
 gaacaattac tgatggcaga ctgttcaaca gtagaagaaa tgattcacgc tgatgaactc
 120
 ggttttgatt ttatcggaag tacttttagta ggatatacaa aacaaagtaa aggtgacaaa
 180
 atcgaagaaa atgactttga aatcttgaga acagtttttag aacgaattaa acatccacta
 240
 attgcagaag gcaatatoga tacacctgaa aagggtgaaac gtgtgcttga gttaggcgcg
 300
 tatagtgtcg ttgtaggggc agcgattact cgtccacaac tcatcacgaa aaaattt
 357

<210> 682
 <211> 119
 <212> PRT
 <213> Homo sapiens

<400> 682
 Thr Arg Pro Asn Gly Gln Thr Leu Asp Asp Phe Tyr His Glu Ile Arg
 1 5 10 15
 Ala Lys Tyr Pro Glu Gln Leu Leu Met Ala Asp Cys Ser Thr Val Glu
 20 25 30
 Glu Met Ile His Ala Asp Glu Leu Gly Phe Asp Phe Ile Gly Ser Thr
 35 40 45
 Leu Val Gly Tyr Thr Lys Gln Ser Lys Gly Asp Lys Ile Glu Glu Asn
 50 55 60
 Asp Phe Glu Ile Leu Arg Thr Val Leu Glu Arg Ile Lys His Pro Leu
 65 70 75 80
 Ile Ala Glu Gly Asn Ile Asp Thr Pro Glu Lys Val Lys Arg Val Leu
 85 90 95
 Glu Leu Gly Ala Tyr Ser Val Val Val Gly Ser Ala Ile Thr Arg Pro
 100 105 110
 Gln Leu Ile Thr Lys Lys Phe
 115

<210> 683
 <211> 411
 <212> DNA
 <213> Homo sapiens

<400> 683
 ntctccgacc gcgtggtaaa actggcgacc ttaattgctg aagatgagca agctgaaatg
 60
 aatattgttt tgcccgagc gtggttgcatt gattgcgtca gttaccctaa aaaccatgta
 120
 ttaagagcac aaagtgcatt acatgcagca gataaagcga ttgtattttt gcgcagtatt
 180

aattacccca aacaatactt attagcaatt catcatgcaa tttcagcgca cagtgtcagt
 240
 ggtaaaatac aggcaatgag tttagaagct caaatagtgc aagatgcaga tagattggat
 300
 gcgctagggg caattggcgt ggctcgttgc attcaagtaa gtagccagtt acagcgccca
 360
 ctatattctg aagttgaccc cttcagcgag acacgatctc tagtctgcat g
 411

<210> 684

<211> 137

<212> PRT

<213> Homo sapiens

<400> 684

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Ser | Asp | Arg | Val | Val | Lys | Leu | Ala | Thr | Leu | Ile | Ala | Glu | Asp | Glu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gln | Ala | Glu | Met | Asn | Ile | Val | Leu | Pro | Ala | Ala | Trp | Leu | His | Asp | Cys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | Ser | Tyr | Pro | Lys | Asn | His | Val | Leu | Arg | Ala | Gln | Ser | Ala | Leu | His |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Ala | Asp | Lys | Ala | Ile | Val | Phe | Leu | Arg | Ser | Ile | Asn | Tyr | Pro | Lys |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gln | Tyr | Leu | Leu | Ala | Ile | His | His | Ala | Ile | Ser | Ala | His | Ser | Val | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Gly | Lys | Ile | Gln | Ala | Met | Ser | Leu | Glu | Ala | Gln | Ile | Val | Gln | Asp | Ala |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Asp | Arg | Leu | Asp | Ala | Leu | Gly | Ala | Ile | Gly | Val | Ala | Arg | Cys | Ile | Gln |
| | | | 100 | | | | 105 | | | | | | 110 | | |
| Val | Ser | Ser | Gln | Leu | Gln | Arg | Pro | Leu | Tyr | Ser | Glu | Val | Asp | Pro | Phe |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ser | Glu | Thr | Arg | Ser | Leu | Val | Cys | Met | | | | | | | |
| | 130 | | | | | 135 | | | | | | | | | |

<210> 685

<211> 417

<212> DNA

<213> Homo sapiens

<400> 685

acgcgttgcg ttgcggagtg aacccggaac gatggatgga ttgacactat tcggcctggt
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 cgccgtcact gcgatgctgg tctgctatgc catggaggac cgcagccact ggttcgtgct
 120
 gctgttcgcg gccgcttggc gtcggttcg gcctacggct tectccaagg cgctggccg
 180
 ttcggttcg tcgaggcgat atgggcgctc gttgcctgcg gcgtggtgga cgatcaggcc
 240
 gcgatgaccg catcgtccgg cttaagcccg gaaacgaaac cgaccagtgc gctggtttga
 300
 tgggcggcgc gtcgctggat gcacagcgtc tcgacgcgag cgtgatgatg gcctcagcgc
 360
 gtgcatgccg acgctgtcgc tcatcgcgct acgctcgacc acggcgcgcg gcaatag
 417

<210> 686
 <211> 110
 <212> PRT
 <213> Homo sapiens

<400> 686
 Met Pro Trp Arg Thr Ala Ala Thr Gly Ser Cys Cys Cys Ser Arg Pro
 1 5 10 15
 Leu Gly Ala Arg Phe Gly Leu Arg Leu Pro Pro Arg Arg Leu Ala Val
 20 25 30
 Arg Leu Arg Arg Gly Asp Met Gly Ala Arg Cys Leu Arg Arg Gly Gly
 35 40 45
 Arg Ser Gly Arg Asp Asp Arg Ile Val Arg Leu Lys Pro Gly Asn Glu
 50 55 60
 Thr Asp Gln Cys Ala Gly Leu Met Gly Gly Ala Ser Leu Asp Ala Gln
 65 70 75 80
 Arg Leu Asp Ala Ser Val Met Met Ala Ser Ala Arg Ala Cys Arg Arg
 85 90 95
 Cys Arg Ser Ser Arg Tyr Ala Arg Pro Arg Arg Ala Ala Ile
 100 105 110

<210> 687
 <211> 412
 <212> DNA
 <213> Homo sapiens

<400> 687
 nnacgcgtga ccgaccaact gcgagccacc ctgctcgcca tggctgctat ggggttgca
 60
 gacggcatcg atattccgtc tggggcgatt attgaaagct gccgcacctt atcagccgtt
 120
 ctcgatgaaa cccacggtgg tcgcacgac gagcttcggg taccacctgc gtgcgcggtt
 180
 caattggcgg ccattgagtc gggccccaac caccaccggg gcactccgcc caatgtggcc
 240
 gagaccgacc ctgtcacctt cctgcagttg gcaactgget tctcacactg gccagaaatg
 300
 cgctcagcag gacgggttca ggcgtctgga tcccacgtcg acgacgttgc tggcgtgttc
 360
 ccagtcgttg atatggccgg ggttttccgc gacatttttg ccgacgacta ga
 412

<210> 688
 <211> 136
 <212> PRT
 <213> Homo sapiens

<400> 688
 Xaa Arg Val Thr Asp Gln Leu Arg Ala Thr Leu Leu Ala Met Ala Ala
 1 5 10 15
 Met Gly Leu His Asp Gly Ile Asp Ile Pro Ser Gly Ala Ile Ile Glu
 20 25 30
 Ser Cys Arg Thr Leu Ser Ala Val Leu Asp Glu Thr His Gly Gly Arg

```

      35              40              45
Thr Ile Glu Leu Arg Val Pro Pro Ala Cys Ala Val Gln Leu Ala Ala
  50              55              60
Ile Glu Ser Gly Pro Asn His His Arg Gly Thr Pro Pro Asn Val Ala
  65              70              75              80
Glu Thr Asp Pro Val Thr Phe Leu Gln Leu Ala Thr Gly Phe Ser His
      85              90              95
Trp Pro Glu Met Arg Ser Ala Gly Arg Val Gln Ala Ser Gly Ser His
      100              105              110
Val Asp Asp Val Ala Gly Val Phe Pro Val Val Asp Met Ala Gly Val
      115              120              125
Phe Arg Asp Ile Phe Ala Asp Asp
      130              135

```

<210> 689
 <211> 499
 <212> DNA
 <213> Homo sapiens

```

<400> 689
cgcgctcgcg tactcgacgt cgattttcat cacggtaacg gcacccagaa cattttttac
60
ccgcgcaatg acgtgatgtt catatcgctg cacggcgagc cggccgtgtc ctatccctac
120
tattcggggt tcagcgatga agtcggcgca ggtgttggcg aaggggtcaa cctcaactac
180
ccgctgccga aaaacaccgc ctgggatacc taccgcgacg ccctgctgca tgccctgcagg
240
aaactccage aattctcgcc gcaggtattg gtgatctcac tgggggtcga caccttcaag
300
gacgaccoga tcagtcactt cctgctggaa ggcgaggatt tcatcgggat cggcgagctg
360
atagcgagtg tgggttgccc caccctgttt gtgatggaag gcggctatat ggtcgatgaa
420
atcggaatca acgcggtgaa cgtactgcat ggcttcgaga gcaagcgcg c ttgagcatcc
480
gccggaagac ggcgtgata
499

```

<210> 690
 <211> 157
 <212> PRT
 <213> Homo sapiens

```

<400> 690
Arg Val Ala Val Leu Asp Val Asp Phe His His Gly Asn Gly Thr Gln
  1              5              10              15
Asn Ile Phe Tyr Pro Arg Asn Asp Val Met Phe Ile Ser Leu His Gly
      20              25              30
Glu Pro Ala Val Ser Tyr Pro Tyr Tyr Ser Gly Phe Ser Asp Glu Val
      35              40              45
Gly Ala Gly Val Gly Glu Gly Phe Asn Leu Asn Tyr Pro Leu Pro Lys
      50              55              60
Asn Thr Ala Trp Asp Thr Tyr Arg Asp Ala Leu Leu His Ala Cys Arg

```

```

65          70          75          80
Lys Leu Gln Gln Phe Ser Pro Gln Val Leu Val Ile Ser Leu Gly Val
          85          90          95
Asp Thr Phe Lys Asp Asp Pro Ile Ser His Phe Leu Leu Glu Gly Glu
          100          105          110
Asp Phe Ile Gly Ile Gly Glu Leu Ile Ala Ser Val Gly Cys Pro Thr
          115          120          125
Leu Phe Val Met Glu Gly Gly Tyr Met Val Asp Glu Ile Gly Ile Asn
          130          135          140
Ala Val Asn Val Leu His Gly Phe Glu Ser Lys Arg Ala
145          150          155

```

<210> 691

<211> 336

<212> DNA

<213> Homo sapiens

<400> 691

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ntgctgctg aaaacgtgca ggcgcggcgca tcagcgactg gcgagcgctt tggctggagt
60
tcgcaaaggc aaggccctg ggagttggcc tgcgacatcg cgctgccgtg cgccaccag
120
aacgaactgg acgccgacgc cgcccgcaag ctgctgcgca acggctgcct ttgcgtggct
180
ggaggcgaga atatgccgcc cgcgcttgag gctgtggata tctttatcga ggcgggcatt
240
ctgttcgcgc ccggcaaggc atccaatgcc ggcggcgctgg ccgtgagtgg cctggaaatg
300
tcgcagaacg ccatgcgcct gctgtggacc gccggc
336

```

<210> 692

<211> 112

<212> PRT

<213> Homo sapiens

<400> 692

```

Xaa Leu Arg Glu Asn Val Gln Arg Gly Ala Ser Ala Thr Gly Glu Arg
1      5      10      15
Phe Gly Trp Ser Ser Gln Arg Gln Gly Pro Trp Glu Leu Ala Cys Asp
20     25     30
Ile Ala Leu Pro Cys Ala Thr Gln Asn Glu Leu Asp Ala Asp Ala Ala
35     40     45
Arg Thr Leu Leu Arg Asn Gly Cys Leu Cys Val Ala Gly Gly Ala Asn
50     55     60
Met Pro Pro Ala Leu Glu Ala Val Asp Ile Phe Ile Glu Ala Gly Ile
65     70     75     80
Leu Phe Ala Pro Gly Lys Ala Ser Asn Ala Gly Gly Val Ala Val Ser
85     90     95
Gly Leu Glu Met Ser Gln Asn Ala Met Arg Leu Leu Trp Thr Ala Gly
100    105    110

```

<210> 693

<211> 580

<212> DNA

<213> Homo sapiens

<400> 693

```

ngggcaaccc ggaaggtccg gcgtcccagc cgcctacctc gctgggaccc tggctcttgc
60
gtcccccgct ggctcctgc ccaagcgact gcggccagga tgggccggaa ggtgaccgtg
120
gccacctgcg cactcaacca gtgggccctg gacttcgagg gcaatttgca aagaatttta
180
aagagtattg aaattgccaa aaacagagga gcaagatata ggcttggacc agagctggaa
240
atatgcgggt gcggatgttg ggatcattat tacgagtcgg acaccctctt gcaactcgttt
300
caagtccctag cggcccttgt ggagtctccc gtcactcagg acatcatctg cgacgtgggg
360
atacctgtaa tgcaccgaaa cgtccgctac aactgcagag tgatattcct caacaggaag
420
atcctgctca tcagacccaa gatggccttg gccaatgaag gcaactaccg cgagctgcgc
480
tggttcacc cgtggctgag gagtccgtga gtcgggtgcc tgaccactcc tgggatgtgc
540
gttaagcacc tccgctgtgt gtagccttgg gtcctgatca
580

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<210> 694

<211> 136

<212> PRT

<213> Homo sapiens

<400> 694

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Met Gly Arg Lys Val Thr Val Ala Thr Cys Ala Leu Asn Gln Trp Ala
1          5          10          15
Leu Asp Phe Glu Gly Asn Leu Gln Arg Ile Leu Lys Ser Ile Glu Ile
20          25          30
Ala Lys Asn Arg Gly Ala Arg Tyr Arg Leu Gly Pro Glu Leu Glu Ile
35          40          45
Cys Gly Cys Gly Cys Trp Asp His Tyr Tyr Glu Ser Asp Thr Leu Leu
50          55          60
His Ser Phe Gln Val Leu Ala Ala Leu Val Glu Ser Pro Val Thr Gln
65          70          75          80
Asp Ile Ile Cys Asp Val Gly Ile Pro Val Met His Arg Asn Val Arg
85          90          95
Tyr Asn Cys Arg Val Ile Phe Leu Asn Arg Lys Ile Leu Leu Ile Arg
100         105         110
Pro Lys Met Ala Leu Ala Asn Glu Gly Asn Tyr Arg Glu Leu Arg Trp
115         120         125
Phe Thr Pro Trp Ser Arg Ser Arg
130         135

```

<210> 695

<211> 439

<212> DNA

<213> Homo sapiens

<400> 695

ntgggtgactc aggcgtccaa tggcacgatg gctgacgtcg tcaatatgcc gtcctcgacc
 60
 atcatggctc tgctgagggc tgattacctg ctcgatatcg agacttcggt gcccgggtatc
 120
 ggcgacaagt tcgtcccga cgtctggggc aaactcaaac tcggcaagga caacgagcac
 180
 accgctctgc cctgggtactt cggcccgttc gtcgtgacgt acaacaagga cattttcaag
 240
 gatgttgccc tcgatcccga aatcccgcgc aagacgatga ccgagtacct cgacttcgcc
 300
 aagaaaaatca ccgctgccgg caagcaggcg gtctatggca acacgtcgtg gtacatgctc
 360
 gcggaatggc gtgccctcgg cgtcaaggtc atgaatgacg acttcaccaa gttcactttt
 420
 gcctcggaat ccaacgcgc
 439

<210> 696

<211> 146

<212> PRT

<213> Homo sapiens

<400> 696

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Val | Thr | Gln | Ala | Ser | Asn | Gly | Thr | Met | Ala | Asp | Val | Val | Asn | Met |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Pro | Ser | Ser | Thr | Ile | Met | Ala | Leu | Ser | Arg | Ala | Asp | Tyr | Leu | Leu | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ile | Glu | Thr | Ser | Val | Pro | Gly | Ile | Gly | Asp | Lys | Phe | Val | Pro | Asp | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Trp | Gly | Lys | Leu | Lys | Leu | Gly | Lys | Asp | Asn | Glu | His | Thr | Ala | Leu | Pro |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Trp | Tyr | Phe | Gly | Pro | Phe | Val | Val | Thr | Tyr | Asn | Lys | Asp | Ile | Phe | Lys |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Asp | Val | Gly | Leu | Asp | Pro | Glu | Ile | Pro | Pro | Lys | Thr | Met | Thr | Glu | Tyr |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Leu | Asp | Phe | Ala | Lys | Lys | Ile | Thr | Ala | Ala | Gly | Lys | Gln | Ala | Val | Tyr |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Gly | Asn | Thr | Ser | Trp | Tyr | Met | Leu | Ala | Glu | Trp | Arg | Ala | Leu | Gly | Val |
| | 115 | | | | | 120 | | | | | 125 | | | | |
| Lys | Val | Met | Asn | Asp | Asp | Phe | Thr | Lys | Phe | Thr | Phe | Ala | Ser | Glu | Ser |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Asn | Ala | | | | | | | | | | | | | | |
| 145 | | | | | | | | | | | | | | | |

<210> 697

<211> 368

<212> DNA

<213> Homo sapiens

<400> 697

nggcaataac gccgtcgtcg aaatccgttc ccttgatctc gaacatgccg atgaagcggg
 60

tgtcgggtgat ggggtcggag atgtcgccct cccacaactt gaacttgatc ggaccaaccc
 120
 tttccaccct ggagagactc gcctgccttg aaagtcttct tgccttctt gggcaactga
 180
 tcgccctccc gaacgagata atccaagctc aagcgaccgc ccaccttgtc gcgcgcctcc
 240
 acaccgacgg aatgcgatgc cgggatcgca tcgatgctag cggcgggtgcg tgcaatgaca
 300
 atcttgtctt cacgcagcga tacgggcccc cggttggaat cgaacacaaa caccttgaag
 360
 gcgttgtn
 368

<210> 698

<211> 108

<212> PRT

<213> Homo sapiens

<400> 698

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Pro | Met | Lys | Arg | Leu | Ser | Val | Met | Gly | Ser | Glu | Met | Ser | Pro | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| His | Asn | Leu | Asn | Leu | Ile | Gly | Pro | Thr | Leu | Ser | Thr | Leu | Glu | Arg | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Cys | Leu | Glu | Ser | Leu | Leu | Ala | Leu | Leu | Gly | Gln | Leu | Ile | Ala | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Pro | Asn | Glu | Ile | Ile | Gln | Ala | Gln | Ala | Thr | Ala | His | Leu | Val | Ala | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | His | Thr | Asp | Gly | Met | Arg | Cys | Arg | Asp | Arg | Ile | Asp | Ala | Ser | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Gly | Ala | Cys | Asn | Asp | Asn | Leu | Val | Phe | Thr | Gln | Arg | Tyr | Gly | Pro | Ala |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Val | Gly | Ile | Glu | His | Lys | His | Leu | Glu | Gly | Val | Val | | | | |
| | | | 100 | | | | | 105 | | | | | | | |

<210> 699

<211> 363

<212> DNA

<213> Homo sapiens

<400> 699

nacggtaca caaatagtat cggaatcatt tcctatcatg ctgctatgac gagatttctc
 60
 cacacctcag attggcaact ggggatgact cggcactacc tgtcgaagcg cggcgacgac
 120
 gaccacagg cacggtttac tgccgatcga atcgagacgg tgcgcaggct gggcgacggt
 180
 gcccggaagg agggctgcga gtttgtcgtc gtcgccggag atgtcttcga aaccacaaat
 240
 gtctccactc agatcattgc ccgcgcgtgt gaggcgatag cctccattga tctccccgtg
 300
 tacctgctgc ccggaaatca cgacagctta gagccggggt gtctctggga tgggccagaa
 360
 ttc
 363

<210> 700
 <211> 121
 <212> PRT
 <213> Homo sapiens

<400> 700
 Xaa Ala Tyr Thr Asn Ser Ile Gly Ile Ile Ser Tyr His Ala Ala Met
 1 5 10 15
 Thr Arg Phe Leu His Thr Ser Asp Trp Gln Leu Gly Met Thr Arg His
 20 25 30
 Tyr Leu Ser Lys Arg Gly Asp Asp Pro Gln Ala Arg Phe Thr Ala
 35 40 45
 Asp Arg Ile Glu Thr Val Arg Arg Leu Gly Asp Val Ala Arg Lys Glu
 50 55 60
 Gly Cys Glu Phe Val Val Val Ala Gly Asp Val Phe Glu Thr His Asn
 65 70 75 80
 Val Ser Thr Gln Ile Ile Ala Arg Ala Cys Glu Ala Ile Ala Ser Ile
 85 90 95
 Asp Leu Pro Val Tyr Leu Leu Pro Gly Asn His Asp Ser Leu Glu Pro
 100 105 110
 Gly Cys Leu Trp Asp Gly Pro Glu Phe
 115 120

<210> 701
 <211> 585
 <212> DNA
 <213> Homo sapiens

<400> 701 -
 nacgcgtccg ggcacaccgt caccgaggcg acgttccacg gccacccac gctgatctat
 60
 ttcggctacg tccattgcgc ggatgtctgc ccgctgacac tgggcaacat ggtctcggcc
 120
 ctcgatcgcc tgggctcccg ggcggacggc atcggtccga tcttcatctc cgtcgatccg
 180
 gcccgcgaca caccgcgct ggtcggacag tatgtcgcgc atttctcgcc gcggatcgtc
 240
 gggctgaccg gcaccgcagc gcagctggcg ccggtactgg cggagttcca catcaccgcg
 300
 cgcgccgaac ctgcggcaca cgacatggcc gccgacatgt atgccgtcga ccacagcgcc
 360
 ctctctatc tgatggacgg caacaaccgc ctgttgcggg tgatggcggt cagcgccgac
 420
 gctgcctcgc tgacgcacca gctggcgggc ggctggccg gggcaagaat gagaccatga
 480
 aagcgatcgg accgacggac gccccgaac aggcagcgcc gggctggtcg ttcggcatca
 540
 tcctgctgct cggcatcgcc ggcatgctcg atttcgtcga ccggt
 585

<210> 702
 <211> 159
 <212> PRT

<213> Homo sapiens

<400> 702

```

Xaa Ala Ser Gly His Thr Val Thr Glu Ala Thr Phe His Gly His Pro
 1           5           10           15
Thr Leu Ile Tyr Phe Gly Tyr Val His Cys Ala Asp Val Cys Pro Leu
      20           25           30
Thr Leu Gly Asn Met Val Ser Ala Leu Asp Arg Leu Gly Ser Arg Ala
      35           40           45
Asp Gly Ile Val Pro Ile Phe Ile Ser Val Asp Pro Ala Arg Asp Thr
      50           55           60
Pro Ala Leu Val Gly Gln Tyr Val Ala His Phe Ser Pro Arg Ile Val
65           70           75           80
Gly Leu Thr Gly Thr Ala Ala Gln Leu Ala Pro Val Leu Ala Glu Phe
      85           90           95
His Ile Thr Ala Arg Ala Glu Pro Ala Ala His Asp Met Ala Ala Asp
      100          105          110
Met Tyr Ala Val Asp His Ser Ala Leu Leu Tyr Leu Met Asp Gly Asn
      115          120          125
Asn Arg Leu Leu Arg Val Met Ala Val Ser Ala Asp Ala Ala Ser Leu
      130          135          140
Thr His Gln Leu Ala Ala Gly Leu Ala Gly Ala Arg Met Arg Pro
145          150          155

```

<210> 703

<211> 390

<212> DNA

<213> Homo sapiens

<400> 703

```

ttctctgctc catacacacc tcagcagaat ggcatcgccg agcgcaagaa cataactctt
60
attgagatgg cccgaacgat gcttgatgag tacaagactc cgcggaagtt ctggcctgaa
120
gccattgata ctgcttggtca caccatcaac cgcgtttatc ttcacaaggt tttggagaaa
180
acctcttatg agttcctaac tggttaagaaa cccaatgtaa gctatttcag agtatttggt
240
gctaggtgct ggatcaagga tcctcatcac acttcaaaaat ttgcaccgaa agcacatgaa
300
ggttttatgc ttggttacgg aaaggattcg cactcctaca gagtcttcaa cctctttcac
360
tataaagtgg ttcaaactgt ggatgtgcgn
390

```

<210> 704

<211> 130

<212> PRT

<213> Homo sapiens

<400> 704

```

Phe Ser Ala Pro Tyr Thr Pro Gln Gln Asn Gly Ile Ala Glu Arg Lys
 1           5           10           15
Asn Ile Thr Leu Ile Glu Met Ala Arg Thr Met Leu Asp Glu Tyr Lys

```

```

      20      25      30
Thr Pro Arg Lys Phe Trp Pro Glu Ala Ile Asp Thr Ala Cys His Thr
      35      40      45
Ile Asn Arg Val Tyr Leu His Lys Val Leu Glu Lys Thr Ser Tyr Glu
      50      55      60
Phe Leu Thr Gly Lys Lys Pro Asn Val Ser Tyr Phe Arg Val Phe Gly
65      70      75      80
Ala Arg Cys Trp Ile Lys Asp Pro His His Thr Ser Lys Phe Ala Pro
      85      90      95
Lys Ala His Glu Gly Phe Met Leu Gly Tyr Gly Lys Asp Ser His Ser
      100      105      110
Tyr Arg Val Phe Asn Leu Phe His Tyr Lys Val Val Gln Thr Val Asp
      115      120      125
Val Arg
      130

```

<210> 705
 <211> 513
 <212> DNA
 <213> Homo sapiens

```

<400> 705
acgcgtattt cgtccaaatg attcaaatca aaacgccgcc gttaaaaacg atgcaggcga
60
agacaatgcg aataaaaaag gtggtaaata agcatgagtt ttaaaatgac acaatctcaa
120
tacacaagtc tttatggacc aactgtagga gactccgtga gattaggaga tacgaacttg
180
tttgacaaag ttgagaaaga ctatgcaaat tatggggatg aagctacttt cggtggcgga
240
aaatcaattc gtgatggtat ggctcaaaat cctaattgtga caagagatga taaaaatgta
300
gccgatttag ttttaactaa cgcattaatt attgattatg acaagattgt taaagcagat
360
atcgggtatta aaaatgggta tattttttaag attggtaaag ctggaaaccc agatataatg
420
gataacgttg acatcatcat tgggtcaaca actgatatta ttgctgctga aggtaaaatt
480
gttactgccg gcggtatcga tacacacgtg cac
513

```

<210> 706
 <211> 140
 <212> PRT
 <213> Homo sapiens

```

<400> 706
Met Ser Phe Lys Met Thr Gln Ser Gln Tyr Thr Ser Leu Tyr Gly Pro
1      5      10      15
Thr Val Gly Asp Ser Val Arg Leu Gly Asp Thr Asn Leu Phe Ala Gln
      20      25      30
Val Glu Lys Asp Tyr Ala Asn Tyr Gly Asp Glu Ala Thr Phe Gly Gly
      35      40      45
Gly Lys Ser Ile Arg Asp Gly Met Ala Gln Asn Pro Asn Val Thr Arg

```

```

      50              55              60
Asp Asp Lys Asn Val Ala Asp Leu Val Leu Thr Asn Ala Leu Ile Ile
65              70              75              80
Asp Tyr Asp Lys Ile Val Lys Ala Asp Ile Gly Ile Lys Asn Gly Tyr
      85              90              95
Ile Phe Lys Ile Gly Lys Ala Gly Asn Pro Asp Ile Met Asp Asn Val
      100              105              110
Asp Ile Ile Ile Gly Ala Thr Thr Asp Ile Ile Ala Ala Glu Gly Lys
      115              120              125
Ile Val Thr Ala Gly Gly Ile Asp Thr His Val His
      130              135              140

```

<210> 707

<211> 409

<212> DNA

<213> Homo sapiens

<400> 707

```

acgcgtggca tcctcagacc accaaagaca atcctgtcct gggaggcagg gagaaagccg
60
gcacactaca cagtgcacag gtgaagccct caggggggtcc tggagcaggg ccacctccct
120
gggggatccc caggtgccat tttcatggca gtgtctatgg acggctcccc ttggcatggt
180
gctgggtggc aatcctggct gtagctgcca cccctgccc tttttgttc cctccgaggg
240
cattgtgatc atcagtgtga gtctgttggg aaggagagcc aggtccccag gtttgggaaa
300
ggagttaggt ttcccagcct gtctggccat cccccccag ccagcccct cctgctgggt
360
gacgtgtca gttcgcccc tgctgtactg ggagggggct aggagcata
409

```

<210> 708

<211> 136

<212> PRT

<213> Homo sapiens

<400> 708

```

Met Leu Leu Ala Pro Ser Gln Tyr Ser Arg Gly Arg Thr Glu His Val
1              5              10              15
Thr Gln Gln Glu Gly Leu Gly Trp Gly Val Met Ala Arg Gln Ala Gly
      20              25              30
Lys Pro Tyr Ser Phe Pro Lys Pro Gly Asp Leu Ala Leu Leu Pro Asn
      35              40              45
Arg Leu Thr Leu Met Ile Thr Met Pro Ser Glu Gly Ser Lys Lys Gly
      50              55              60
Arg Gly Trp Gln Leu Gln Pro Gly Leu Pro Pro Ser Thr Met Pro Arg
65              70              75              80
Gly Ala Val His Arg His Cys His Glu Asn Gly Thr Trp Gly Ser Pro
      85              90              95
Arg Glu Val Ala Leu Leu Gln Asp Pro Leu Arg Ala Ser Pro Val His
      100              105              110
Cys Val Val Cys Arg Leu Ser Pro Cys Leu Pro Gly Gln Asp Cys Leu

```

115 120
Trp Trp Ser Glu Asp Ala Thr Arg
130 135

125

<210> 709
<211> 771
<212> DNA
<213> Homo sapiens

<400> 709
acgcgtctga cggagagcct cctgagtctc cccacgcaga ggactcagaa agggaatcgg
60
tgaccacacc tgggccagcg acgtgtggtg cgccagcctc cccagcggat cacctcctcc
120
tcccctccca ggaggagagt ttctccgaag tccccatgag tgaagcaagc tcagcgaaag
180
acactccact ctttaggag gagggagagg atgcccttgt gactcagtat cagagcaaag
240
ccagtgacca cgaagggtta ttgtctgacc ccttgagtga ccttcagttg gtctcagatt
300
ttaaatctcc aatcatggcc gatctgaact taagccttcc ttccattcct gaagtcgcat
360
cggatgatga aagaatagat cagggttgaag atgacggaga tcagggttga gatgatggag
420
agacagcaaa gtcgtcaact ctggacatag gagctttgtc cttgggcttg gtagtcccct
480
gtcctgagag gggaaagggg cccagtggcg aggcagatag gttgggtactg ggggagggcc
540
tgtgtgattt caggctgcaa gcaccccgagg catctgtgac agctccttca gagcagacca
600
cagagttcgg aattcacaaa ccacatcttg gcaagagctc aagcttggat aaacagctgc
660
caggccccag tgggtgtgag gaagaaaaac cgatgggaaa tgggagtcca agccgcctc
720
ctggcacatc cctggacaat cctgtaccca gcccctcccc ttctgagatc t
771

<210> 710
<211> 205
<212> PRT
<213> Homo sapiens

<400> 710
Met Ser Glu Ala Ser Ser Ala Lys Asp Thr Pro Leu Phe Arg Met Glu
1 5 10 15
Gly Glu Asp Ala Leu Val Thr Gln Tyr Gln Ser Lys Ala Ser Asp His
20 25 30
Glu Gly Leu Leu Ser Asp Pro Leu Ser Asp Leu Gln Leu Val Ser Asp
35 40 45
Phe Lys Ser Pro Ile Met Ala Asp Leu Asn Leu Ser Leu Pro Ser Ile
50 55 60
Pro Glu Val Ala Ser Asp Asp Glu Arg Ile Asp Gln Val Glu Asp Asp
65 70 75 80
Gly Asp Gln Val Glu Asp Asp Gly Glu Thr Ala Lys Ser Ser Thr Leu

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 85 | | | | | | | | 90 | | | | 95 | | | |
| Asp | Ile | Gly | Ala | Leu | Ser | Leu | Gly | Leu | Val | Val | Pro | Cys | Pro | Glu | Arg |
| 100 | | | | | | | | 105 | | | | 110 | | | |
| Gly | Lys | Gly | Pro | Ser | Gly | Glu | Ala | Asp | Arg | Leu | Val | Leu | Gly | Glu | Gly |
| 115 | | | | | | | | 120 | | | | 125 | | | |
| Leu | Cys | Asp | Phe | Arg | Leu | Gln | Ala | Pro | Gln | Ala | Ser | Val | Thr | Ala | Pro |
| 130 | | | | | | | | 135 | | | | 140 | | | |
| Ser | Glu | Gln | Thr | Thr | Glu | Phe | Gly | Ile | His | Lys | Pro | His | Leu | Gly | Lys |
| 145 | | | | | | | | 150 | | | | 155 | | | |
| Ser | Ser | Ser | Leu | Asp | Lys | Gln | Leu | Pro | Gly | Pro | Ser | Gly | Gly | Glu | Glu |
| 165 | | | | | | | | 170 | | | | 175 | | | |
| Glu | Lys | Pro | Met | Gly | Asn | Gly | Ser | Pro | Ser | Pro | Pro | Pro | Gly | Thr | Ser |
| 180 | | | | | | | | 185 | | | | 190 | | | |
| Leu | Asp | Asn | Pro | Val | Pro | Ser | Pro | Ser | Pro | Ser | Glu | Ile | | | |
| 195 | | | | | | | | 200 | | | | 205 | | | |

```
<210> 711
<211> 432
<212> DNA
<213> Homo sapiens
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```
<400> 711
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60
attctcctgt tttatatcta ctcccccta gggtcatcct actccctcat cttctgagct
120
aatgtgcccg ctttatttgc acttgcatgg aatatgatta tgaacacagt ttttatcatt
180
gatgaccacc ccgttatcag gttggcgatt cgtatgttgt tggaacacga gggttataag
240
gtcgttggtg aaacggacaa cggttgtgac gcgatccaaa tggttcgcga atgcctgccg
300
gacctgatca tcctggatat cagcatcccg aaactcgacg gcctcgaagt gctctgccga
360
ttcaacgcca tgaacacatc catgaaaacc ctgattctta ccgccagag tccgacgttg
420
ttcgccacgc gt
432
```

```
<210> 712
<211> 93
<212> PRT
<213> Homo sapiens
```

```

<400> 712
Met Ile Met Asn Thr Val Phe Ile Ile Asp Asp His Pro Val Ile Arg
 1             5             10             15
Leu Ala Ile Arg Met Leu Leu Glu His Glu Gly Tyr Lys Val Val Gly
          20             25             30
Glu Thr Asp Asn Gly Cys Asp Ala Ile Gln Met Val Arg Glu Cys Leu
          35             40             45
Pro Asp Leu Ile Ile Leu Asp Ile Ser Ile Pro Lys Leu Asp Gly Leu
          50             55             60
Glu Val Leu Cys Arg Phe Asn Ala Met Asn Thr Ser Met Lys Thr Leu

```

```

65          70          75          80
Ile Leu Thr Ala Gln Ser Pro Thr Leu Phe Ala Thr Arg
          85          90

<210> 713
<211> 465
<212> DNA
<213> Homo sapiens

<400> 713
atcctgatcg ccaacggtgg tatgcagaac ccggtggggcg cgggtgttcaa ccccgacacc
60
atgcgcgatgg aaatgaccga cttcgccgcg gtgatcttca acccggtggc gcaggccaag
120
ttcgatgcata cggtcagcgc gggctacgtg gccggcgcca tgttcgtcat gtcgatcagc
180
gcctgggtacc tgctcaaggg ccgccacacc gacctggcca agcgctcgat ggcggtcgcc
240
gccagcttcg gcctggcgtc ggcgctgtcg gtcgctcgtc tgggtgacga aagcggttat
300
ctcaccaccg aacaccagaa gatgaagatc gcggccatgg aatccatgtg gcacaccgag
360
ccggcgcccg cgctcttcaa cctgatcgcg ctgcccaccc aggccgaacg caagaacgac
420
ttcgccatcg agattcccta cgtcatgngc ctcatcgga cgcgt
465

<210> 714
<211> 155
<212> PRT
<213> Homo sapiens

<400> 714
Ile Leu Ile Ala Asn Gly Gly Met Gln Asn Pro Val Gly Ala Val Phe
 1          5          10          15
Asn Pro Asp Thr Met Arg Met Glu Met Thr Asp Phe Ala Ala Val Ile
          20          25          30
Phe Asn Pro Val Ala Gln Ala Lys Phe Val His Thr Val Ser Ala Gly
          35          40          45
Tyr Val Ala Gly Ala Met Phe Val Met Ser Ile Ser Ala Trp Tyr Leu
          50          55          60
Leu Lys Gly Arg His Thr Asp Leu Ala Lys Arg Ser Met Ala Val Ala
65          70          75          80
Ala Ser Phe Gly Leu Ala Ser Ala Leu Ser Val Val Val Leu Gly Asp
          85          90          95
Glu Ser Gly Tyr Leu Thr Thr Glu His Gln Lys Met Lys Ile Ala Ala
          100          105          110
Met Glu Ser Met Trp His Thr Glu Pro Ala Pro Ala Ser Phe Asn Leu
          115          120          125
Ile Ala Leu Pro Asn Gln Ala Glu Arg Lys Asn Asp Phe Ala Ile Glu
          130          135          140
Ile Pro Tyr Val Met Xaa Leu Ile Gly Thr Arg
145          150          155

```

<210> 715
 <211> 354
 <212> DNA
 <213> Homo sapiens

<400> 715
 nnaccggtgg atgccaacga atatcgtggc gagctgaaag tcggcgccat caccaccgcc
 60
 cagaccggcc tgctgcctca ggcactggtg cgtttgccgc aggcagcgcc gacggtggag
 120
 tgcaagttgg taccgggggt ttccctggag ttgctcagcc aggtggacgc aggcgagctg
 180
 gactcggcga tcatcattcg cccgcccttt gatttgccca aggagttgca cgtacaggta
 240
 ctgcgcaagg agccgtttgt gttgatcgtg cccagggcgg tcgggggtga tgaccggtg
 300
 caactgctcg aagctcatcc ccacgtgcgc tacgaccgcg cttcgtttgg cggg
 354

<210> 716
 <211> 118
 <212> PRT
 <213> Homo sapiens

<400> 716
 Xaa Pro Val Asp Ala Asn Glu Tyr Arg Gly Glu Leu Lys Val Gly Ala
 1 5 10 15
 Ile Thr Thr Ala Gln Thr Gly Leu Leu Pro Gln Ala Leu Val Arg Leu
 20 25 30
 Arg Gln Ala Ala Pro Thr Val Glu Cys Lys Leu Val Pro Gly Val Ser
 35 40 45
 Leu Glu Leu Leu Ser Gln Val Asp Ala Gly Glu Leu Asp Ser Ala Ile
 50 55 60
 Ile Ile Arg Pro Pro Phe Asp Leu Pro Lys Glu Leu His Val Gln Val
 65 70 75 80
 Leu Arg Lys Glu Pro Phe Val Leu Ile Val Pro Gln Ala Val Gly Gly
 85 90 95
 Asp Asp Pro Leu Gln Leu Leu Glu Ala His Pro His Val Arg Tyr Asp
 100 105 110
 Arg Ala Ser Phe Gly Gly
 115

<210> 717
 <211> 401
 <212> DNA
 <213> Homo sapiens

<400> 717
 acgcgtatct tttcggtaaa cctactaatt tttcattcaa cgctcgacgc ccaggtaaag
 60
 ccgttaagtc atctaaatag gccattctgt ggctctccat cagtaagaac caaatccata
 120
 ggagaagttg agcggatagt aatgcatcaa attgatgctg agaaaccgaa aaatgggaca
 180

atataatcaa gctgacaata ctgatcaaac cactcgcatg aaagctacta ccgcttgacc
 240
 accaagcaga aaaaaccaat gaaatgctta aaaataaaat cgtccaaagt aaaaagctag
 300
 accaggtggt agccagatta aaaataggcc gctctagaaa atgaaaagaa atccaatgag
 360
 attcaacggc gtagcaccag cacagcaaca tagccactag t
 401

<210> 718
 <211> 130
 <212> PRT
 <213> Homo sapiens

<400> 718
 Met Leu Leu Cys Trp Cys Tyr Ala Val Glu Ser His Trp Ile Ser Phe
 1 5 10 15
 His Phe Leu Glu Arg Pro Ile Phe Asn Leu Ala Thr Thr Trp Ser Ser
 20 25 30
 Phe Leu Leu Trp Thr Ile Leu Phe Leu Ser Ile Ser Leu Val Phe Ser
 35 40 45
 Ala Trp Trp Ser Ser Gly Ser Ser Phe His Ala Ser Gly Leu Ile Ser
 50 55 60
 Ile Val Ser Leu Ile Ile Leu Ser His Phe Ser Val Ser Gln His Gln
 65 70 75 80
 Phe Asp Ala Leu Leu Ser Ala Gln Leu Leu Leu Trp Ile Trp Phe Leu
 85 90 95
 Leu Met Glu Ser His Arg Met Ala Tyr Leu Asp Asp Leu Thr Ala Leu
 100 105 110
 Pro Gly Arg Arg Ala Leu Asn Glu Lys Leu Val Gly Leu Pro Lys Arg
 115 120 125
 Tyr Ala
 130

<210> 719
 <211> 685
 <212> DNA
 <213> Homo sapiens

<400> 719
 tatatagggc tatctacctt attcacagca cattccatct acacaacctt gtagcgttca
 60
 ctcttgaagg cggattttca taggcgctgc gcctctcata ttcaagcatc aaggcaatcc
 120
 aatctccctg cgttggtaac tgggcaaaag aaagacctct gcagtccagc aacctcatcg
 180
 tgcaaagtgc gtggcggtgt caactctgac ggcttggaag ctgcagacct tgtcaaagga
 240
 cctcggccga aattcaccct tgatctcttt gtcttgtcca actcttgtcc ctgagaatga
 300
 aactgtcttc tgagagtcca tcaatgcgac gctgactcgt gagaagtgtc gaatcacgtc
 360
 gccattttgg agacctgcc aacgagctct ggaacctgcc aggacgcctt ccacaacacc
 420

agaacgcagc gactttgcgt taaatccaag ctcaaacc tcttgctcca caggcctgag
 480
 cataaaaagg tattctgcga cgggaaatgt aaagtctgag cttaggtgca gaggaccgcc
 540
 atcgatcagt gtctgatact gcttgctccgc gacttctttg ccgagcaatg ggtatagcgt
 600
 tttcaaccaa gtggaagcag tcgtttgctc accctggcga ttccggcgag ttagggacat
 660
 gaccacgtca tcgatgggat tttgc
 685

<210> 720

<211> 161

<212> PRT

<213> Homo sapiens

<400> 720

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ser | Leu | Thr | Arg | Arg | Asn | Arg | Gln | Gly | Glu | Gln | Thr | Thr | Ala | Ser |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Thr | Trp | Leu | Lys | Thr | Leu | Tyr | Pro | Leu | Leu | Gly | Lys | Glu | Val | Ala | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Lys | Gln | Tyr | Gln | Thr | Leu | Ile | Asp | Gly | Gly | Thr | Leu | His | Leu | Ser | Ser |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Asp | Phe | Thr | Phe | Pro | Val | Ala | Glu | Tyr | Leu | Phe | Met | Leu | Arg | Pro | Val |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Glu | Gln | Glu | Val | Phe | Glu | Leu | Gly | Phe | Asn | Ala | Lys | Ser | Leu | Arg | Ser |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Gly | Val | Val | Glu | Gly | Val | Leu | Ala | Gly | Ser | Arg | Ala | Ala | Leu | Ala | Gly |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Leu | Gln | Asn | Gly | Asp | Val | Ile | Gln | His | Phe | Ser | Arg | Val | Ser | Val | Ala |
| | | | 100 | | | | 105 | | | | | 110 | | | |
| Leu | Met | Asp | Ser | Gln | Lys | Thr | Val | Ser | Phe | Ser | Gly | Thr | Arg | Val | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Gln | Asp | Lys | Glu | Ile | Lys | Gly | Glu | Phe | Arg | Pro | Arg | Ser | Phe | Asp | Lys |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Val | Cys | Ser | Phe | Gln | Ala | Val | Arg | Val | Asp | His | Ala | Thr | Ala | Phe | Ala |
| 145 | | | | 150 | | | | | 155 | | | | | | 160 |

Arg

<210> 721

<211> 579

<212> DNA

<213> Homo sapiens

<400> 721

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 120
 aggaacgctc tcagggtggc tgaagtctgg atggatgaat ttaaaagcca cgtctactgg
 180
 catggaacat accaggagga ctcaggaatt gacattgggg acatcactgc aaggaaggct
 240

ctcaggaac agctgcagtg caagaccttc cgggtggtacc tggtcagcgt gtaccagag
 300
 atgaggatgt actccgacat cattgcctat ggagtgcctgc agaattctct gaagactgat
 360
 ttgtgtcttg accagggggc agatacagag aatgtcccca tcatgtacat ctgccatggg
 420
 atgacgcctc agaacgtgta ctacacgagc agtcagcaga tccatgtggg cattctgagc
 480
 cccaccgtgg atgatgatga caaccgatgc ctggtggacg tcaacagccg gccccggctc
 540
 atcgaatgca gctacgcca agccaagagg atgaagctt
 579

<210> 722

<211> 193

<212> PRT

<213> Homo sapiens

<400> 722

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Leu | Gly | Ile | Arg | Val | Trp | Gln | Cys | Gly | Gly | Ser | Val | Glu | Val | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Pro | Cys | Ser | Arg | Ile | Ala | His | Ile | Glu | Arg | Ala | His | Lys | Pro | Tyr | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Glu | Asp | Leu | Thr | Ala | His | Val | Arg | Arg | Asn | Ala | Leu | Arg | Val | Ala | Glu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Val | Trp | Met | Asp | Glu | Phe | Lys | Ser | His | Val | Tyr | Trp | His | Gly | Thr | Tyr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gln | Glu | Asp | Ser | Gly | Ile | Asp | Ile | Gly | Asp | Ile | Thr | Ala | Arg | Lys | Ala |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Leu | Arg | Lys | Gln | Leu | Gln | Cys | Lys | Thr | Phe | Arg | Trp | Tyr | Leu | Val | Ser |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Val | Tyr | Pro | Glu | Met | Arg | Met | Tyr | Ser | Asp | Ile | Ile | Ala | Tyr | Gly | Val |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Leu | Gln | Asn | Ser | Leu | Lys | Thr | Asp | Leu | Cys | Leu | Asp | Gln | Gly | Pro | Asp |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Thr | Glu | Asn | Val | Pro | Ile | Met | Tyr | Ile | Cys | His | Gly | Met | Thr | Pro | Gln |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Asn | Val | Tyr | Tyr | Thr | Ser | Ser | Gln | Gln | Ile | His | Val | Gly | Ile | Leu | Ser |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |
| Pro | Thr | Val | Asp | Asp | Asp | Asp | Asn | Arg | Cys | Leu | Val | Asp | Val | Asn | Ser |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Arg | Pro | Arg | Leu | Ile | Glu | Cys | Ser | Tyr | Ala | Lys | Ala | Lys | Arg | Met | Lys |
| | | | 180 | | | | | 185 | | | | | 190 | | |

Leu

<210> 723

<211> 384

<212> DNA

<213> Homo sapiens

<400> 723

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ctcaacgaaa tgctctcgct taaaccgtgc gaaggaaccc caccgcaatg gcgcttattc
 120
 cgcggaagggg attaccaaatt gcgcattgat acgcgctccg gaacgcctac gctgatgctt
 180
 accgtacaaa gtgtaaccga caaacctgtt acggacgtca ctcgacaatg tcctaaatgg
 240
 gacggcaagc ccctcacctc tgacgtaacg aatacattcc cggaaggctc cgtcgtacga
 300
 gactttctaca gcaagcaaac cgctatgggtg cagcaaggta aaatcacact tcagcctgcc
 360
 gctaacagca atggcctgct gctg
 384

<210> 724

<211> 128

<212> PRT

<213> Homo sapiens

<400> 724

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Arg | Pro | Leu | Thr | Leu | Ser | Phe | Asp | Asn | Ala | Cys | Trp | Gln | Pro | Thr |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Glu | Ala | Val | Lys | Leu | Asn | Glu | Met | Leu | Ser | Leu | Lys | Pro | Cys | Glu | Gly |
| | | | 20 | | | | | 25 | | | | 30 | | | |
| Thr | Pro | Pro | Gln | Trp | Arg | Leu | Phe | Arg | Glu | Gly | Asp | Tyr | Gln | Met | Arg |
| | | | 35 | | | | 40 | | | | 45 | | | | |
| Ile | Asp | Thr | Arg | Ser | Gly | Thr | Pro | Thr | Leu | Met | Leu | Thr | Val | Gln | Ser |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Val | Thr | Asp | Lys | Pro | Val | Thr | Asp | Val | Thr | Arg | Gln | Cys | Pro | Lys | Trp |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Asp | Gly | Lys | Pro | Leu | Thr | Leu | Asp | Val | Thr | Asn | Thr | Phe | Pro | Glu | Gly |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Ser | Val | Val | Arg | Asp | Phe | Tyr | Ser | Lys | Gln | Thr | Ala | Met | Val | Gln | Gln |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gly | Lys | Ile | Thr | Leu | Gln | Pro | Ala | Ala | Asn | Ser | Asn | Gly | Leu | Leu | Leu |
| | | 115 | | | | | 120 | | | | | | 125 | | |

<210> 725

<211> 521

<212> DNA

<213> Homo sapiens

<400> 725

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 120
 gaaaataggt ttccttcttc cacaggcatg gagaaggaag gaaattttgc actggccttt
 180
 gggaagctga agaagagctg gggggaggct tgttctgaca aaatagtac tctctccctg
 240
 cttgaaatgt cccacagaag gctgtttctg gttcacattt gccctctag gtccactccc
 300
 tccccttcac cctgctcact gccagagaga ctatgctggg agtgggtgcat cgggtggtctc
 360

caggcccttt taggctcaag gtgttcattc cctggctcct tccctgccat gtctttgttc
 420
 ctctctccct ccttcccatc ccagcagcca cctctctcct tccaccagac ctgggaacca
 480
 tcatacccaac cacaatcacc ccgtgggttct attacacgcg t
 521

<210> 726

<211> 124

<212> PRT

<213> Homo sapiens

<400> 726

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Glu | Lys | Glu | Gly | Asn | Phe | Ala | Leu | Ala | Phe | Gly | Lys | Leu | Lys | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ser | Trp | Gly | Glu | Ala | Cys | Ser | Asp | Lys | Ile | Val | Thr | Leu | Ser | Leu | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Glu | Met | Ser | His | Arg | Arg | Leu | Phe | Leu | Val | His | Ile | Cys | Pro | Ser | Arg |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Ser | Thr | Pro | Ser | Pro | Ser | Ser | Cys | Ser | Leu | Pro | Glu | Arg | Leu | Cys | Trp |
| | | | 50 | | | | 55 | | | | 60 | | | | |
| Glu | Trp | Cys | Ile | Gly | Gly | Leu | Gln | Ala | Leu | Leu | Gly | Ser | Arg | Cys | Ser |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Phe | Pro | Gly | Ser | Phe | Pro | Ala | Met | Ser | Leu | Phe | Leu | Pro | Pro | Ser | Phe |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Pro | Ser | Gln | Gln | Pro | Pro | Ser | Ser | Phe | His | Gln | Thr | Trp | Glu | Pro | Ser |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ser | Gln | Pro | Gln | Ser | Pro | Arg | Gly | Ser | Ile | Thr | Arg | | | | |
| | | | 115 | | | | 120 | | | | | | | | |

<210> 727

<211> 629

<212> DNA

<213> Homo sapiens

<400> 727

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 120
 tgccattatc gacgctggtg agttgaaggc tccgacgcac cgggcgtttg cgtcaatcag
 180
 tgccgccccg cagcaggtcc aaggagaact cgaatgaatc cgaatgacta cctggtgctc
 240
 tcggcgatct tgttcgctat cggcatcgtg ggcttctga cgaggcgtaa tgccctggtg
 300
 gcctttatgt cggaggagtt gatgctcaac gccgcgaacc tggcgctggt gactttcgct
 360
 cacgtacacg gctctctcga cggacaggtc ggggttttct tcgtgatgat cgtggcagcc
 420
 gctgaggtgg ttgtcggttt ggcgatcacc gtcactatct tccgttcccg tcgcaccact
 480
 tcggtggacg acaccaacct gctgaagttc tgaggaggt accgtgactg tcttggaac
 540

cggttggttc aacgtggcct ggctcatgat tgcggtgccca ctggtggttg ccgcgctgct
600
attggtgctg ggacgccgca gcgacgcgt
629

<210> 728

<211> 99

<212> PRT

<213> Homo sapiens

<400> 728

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Asn | Pro | Asn | Asp | Tyr | Leu | Val | Leu | Ser | Ala | Ile | Leu | Phe | Ala | Ile |
| 1 | | | 5 | | | | | 10 | | | | 15 | | | |
| Gly | Ile | Val | Gly | Phe | Leu | Thr | Arg | Arg | Asn | Ala | Leu | Val | Ala | Phe | Met |
| | | 20 | | | | | 25 | | | | 30 | | | | |
| Ser | Val | Glu | Leu | Met | Leu | Asn | Ala | Ala | Asn | Leu | Ala | Leu | Val | Thr | Phe |
| | 35 | | | | | 40 | | | | | 45 | | | | |
| Ala | His | Val | His | Gly | Ser | Leu | Asp | Gly | Gln | Val | Gly | Val | Phe | Phe | Val |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Met | Ile | Val | Ala | Ala | Ala | Glu | Val | Val | Val | Gly | Leu | Ala | Ile | Ile | Val |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Thr | Ile | Phe | Arg | Ser | Arg | Arg | Thr | Thr | Ser | Val | Asp | Asp | Thr | Asn | Leu |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Leu | Lys | Phe | | | | | | | | | | | | | |

<210> 729

<211> 4716

<212> DNA

<213> Homo sapiens

<400> 729

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120
ggagaatgta ttcttttgat gatgtgctgg aggaaggaaa gcgaccccct acaatgactg
180
tgtcagaagc aagttaccag agtgagagag tagaagagaa gggagcaact tattcttcag
240
aaattcccaa agaagattct accacttttg caaaaagaga ggacccgtgt aacaactgaa
300
attcagcttc cttctcaaag tcctgtggaa gaacaaagcc cagcctcttt gtcttctctg
360
cgttcacgga gcacacaaat ggaatcaact cgtgtttcag cttctctccc cagaagttac
420
cggaactg atacagtcag gttaacatct gtggtcacac caagaccctt tggctctcag
480
acaaggggaa tctcatcact cccagatct tacacgatgg atgatgcttg gaagtataat
540
ggagatgttg aagacattaa gagaactcca aacaatgtgg tcagcaccct tgcaccaagc
600
ccggacgcaa gccaaactggc ttcaagctta tctagccaga aagaggtagc agcaacagaa
660

gaagatgtga caaggetgcc ctctcctaca tcccccttct catctctttc ccaagaccag
 720
 gctgccactt ctaaagccac attgtcttcc acatctgggc ttgatttaac gtctgaatct
 780
 ggagaagggg aaatctcccc acaaagagaa gtctcaagat cccaggatca gttcagtgat
 840
 atgagaatca gcataaacca gacgcctggg aagagtcttg actttgggtt tacaataaaa
 900
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 960
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 1020
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 1080
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 1140
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 1200
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 1380
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 1860
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 1920
 tatgatatac caaagacaga agaagcatct tcagggtttc ttcttggtga caggaataaa
 1980
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 2040
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 2100
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 2160
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 2220
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tcttggagac agcctccttg gctcaatcag cccacaggat tctatgcttc ttcctctgtg
2340
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2400
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2460
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2520
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2580
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2640
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3300
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3360
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3480
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3840
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3900

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 4200
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 4260
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 4320
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 4380
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 4440
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 4620
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 4716

<210> 730

<211> 797

<212> PRT

<213> Homo sapiens

<400> 730

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Glu | Ser | Thr | Arg | Val | Ser | Ala | Ser | Leu | Pro | Arg | Ser | Tyr | Arg | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Thr | Asp | Thr | Val | Arg | Leu | Thr | Ser | Val | Val | Thr | Pro | Arg | Pro | Phe | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Gln | Thr | Arg | Gly | Ile | Ser | Ser | Leu | Pro | Arg | Ser | Tyr | Thr | Met | Asp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asp | Ala | Trp | Lys | Tyr | Asn | Gly | Asp | Val | Glu | Asp | Ile | Lys | Arg | Thr | Pro |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asn | Asn | Val | Val | Ser | Thr | Pro | Ala | Pro | Ser | Pro | Asp | Ala | Ser | Gln | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ala | Ser | Ser | Leu | Ser | Ser | Gln | Lys | Glu | Val | Ala | Ala | Thr | Glu | Glu | Asp |
| | | | 85 | | | | | | 90 | | | | 95 | | |
| Val | Thr | Arg | Leu | Pro | Ser | Pro | Thr | Ser | Pro | Phe | Ser | Ser | Leu | Ser | Gln |
| | | 100 | | | | | 105 | | | | | | 110 | | |
| Asp | Gln | Ala | Ala | Thr | Ser | Lys | Ala | Thr | Leu | Ser | Ser | Thr | Ser | Gly | Leu |
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| Ala | Glu | Leu | Glu | Arg | Gln | Gln | Ile | Leu | Gln | Glu | Met | Arg | Lys | Arg |

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| Pro | Leu | His | Asn | Asp | Asn | Ser | Trp | Ile | Arg | Gln | Arg | Ser | Ala | Ser | Val |
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| Lys | Thr | Ser | Thr | Thr | Gly | Val | Ala | Thr | Thr | Gln | Ser | Pro | Thr | Pro | Arg |
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| Ser | His | Ser | Pro | Ser | Ala | Ser | Gln | Ser | Gly | Ser | Gln | Leu | Arg | Asn | Arg |
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| Ser | Val | Ser | Gly | Lys | Arg | Ile | Cys | Ser | Tyr | Cys | Asn | Asn | Ile | Leu | Gly |
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| Lys | Gly | Ala | Ala | Met | Ile | Ile | Glu | Ser | Leu | Gly | Leu | Cys | Tyr | His | Leu |
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| Thr | His | Thr | Lys | Trp | Trp | Gly | Thr | Gly | His | Phe | Leu | Ile | Thr | His | Phe |
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| Leu | Ile | Leu | Pro | Pro | Pro | Leu | His | Thr | Tyr | Leu | Glu | Leu | Lys | Glu | Gln |
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| Trp | Pro | Asp | Lys | Val | Leu | Thr | Pro | Ser | Arg | Gln | Pro | Glu | Ser | Val | Phe |
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<211> 175

<212> PRT

<213> Homo sapiens

<400> 736

| | |
|---|----|
| Met Asp Ser Arg Asn Leu Glu Thr Ala Asn Leu Ile Pro Glu Lys Ile | |
| 1 | 5 |
| Ile Ala Trp Cys Pro Arg Ser Arg Ser Asp Arg Pro Leu Asp Arg Ser | |
| | 20 |
| Thr Gln Asp Ile Leu Ser Ala Ile His Asp Val Ala Ala Pro Leu Ala | |
| | 35 |
| Leu Pro Ile Phe Val Val Gly Ala Thr Ala Arg Asp Ile Leu Leu Thr | |
| | 50 |
| His Val Phe Gly Ile Glu Thr Gly Arg Ala Thr Leu Asp Val Asp Phe | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ala | Val | Ala | Val | Glu | His | Trp | Pro | Gln | Phe | Glu | Asn | Ile | Lys | Gln | His |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Leu | Leu | Ala | Asn | Asp | His | Phe | Asp | Ser | Ala | Ala | Ser | Ile | Thr | His | Arg |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Leu | Leu | Tyr | Arg | Thr | Ser | Asp | Asn | Thr | Ile | Ala | Arg | Pro | Ile | Asp | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ile | Pro | Phe | Gly | Gly | Ile | Glu | Gln | Pro | Pro | Ala | Thr | Ile | Lys | Trp | Pro |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Pro | Asp | Met | Ala | Val | Met | Met | Asn | Val | Ala | Gly | Tyr | Ala | Asp | Ala | Trp |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |
| Arg | Ala | Ala | Val | Glu | Val | Glu | Phe | Val | Pro | Gly | Arg | Ser | Ile | Arg | |
| | | | 165 | | | | | 170 | | | | | | 175 | |

<210> 737

<211> 497

<212> DNA

<213> Homo sapiens

<400> 737

```

ntgcgcctgg ccaattccgg cgccatcctc gggcacgatac tggggaaaac ctccatggtg
60
cgcgccggca tcgttgggta cggatacgat cccaaccctc acgccgaccg tgccgaccta
120
caccctgccc tgccttggat cagccacgct accttcgtta aaactgtcag tgtgggggat
180
accatcggct acggcagaac atggacagcc agcgaaacga caaaaatcgc caccgtccca
240
gtcggttacg ccgacggact gtcccagga ctgtcaaata aaggacacgt tctcattaga
300
gggtccgttc atcccatcgt cggtcggatac tgcattggacc aattcatggt cgatcttggc
360
cccgattcga acgtcacggg gggagatgag gtggtgctca ttggaacca ggaggacgaa
420
actctgaccg ctgatgacat ggccgaactc ctcggaacca ttagctacga gatcacttgc
480
gccatttcca aacgcgt
497

```

<210> 738

<211> 165

<212> PRT

<213> Homo sapiens

<400> 738

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Arg | Leu | Ala | Asn | Ser | Gly | Ala | Ile | Leu | Gly | His | Asp | Leu | Gly | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Thr | Ser | Met | Val | Arg | Ala | Gly | Ile | Val | Gly | Tyr | Gly | Tyr | Asp | Pro | Asn |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Pro | His | Ala | Asp | Arg | Ala | Asp | Leu | His | Pro | Ala | Leu | Ser | Trp | Ile | Ser |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| His | Val | Thr | Phe | Val | Lys | Thr | Val | Ser | Val | Gly | Asp | Thr | Ile | Gly | Tyr |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Gly | Arg | Thr | Trp | Thr | Ala | Ser | Glu | Thr | Thr | Lys | Ile | Ala | Thr | Val | Pro |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Val | Gly | Tyr | Ala | Asp | Gly | Leu | Ser | Arg | Gly | Leu | Ser | Asn | Lys | Gly | His |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Val | Leu | Ile | Arg | Gly | Ser | Val | His | Pro | Ile | Val | Gly | Arg | Ile | Cys | Met |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asp | Gln | Phe | Met | Val | Asp | Leu | Gly | Pro | Asp | Ser | Asn | Val | Thr | Val | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Asp | Glu | Val | Val | Leu | Ile | Gly | Thr | Gln | Glu | Asp | Glu | Thr | Leu | Thr | Ala |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Asp | Asp | Met | Ala | Glu | Leu | Leu | Gly | Thr | Ile | Ser | Tyr | Glu | Ile | Thr | Cys |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ala | Ile | Ser | Lys | Arg | | | | | | | | | | | |
| | | | | 165 | | | | | | | | | | | |

<210> 739

<211> 438

<212> DNA

<213> Homo sapiens

<400> 739

```

cggctgctggg aagagcgggc gcacgcgctc aagaccaagg aaaagctggc acagaccgcc
60
acggcctcat cagcagctgt gggtcaggc cccctcccc aggcgaggca ggcgtggccg
120
cagagcagcg gggaggagga gctgcagctc cagctggccc tggccatgag caaggaggag
180
gccgaccagc ccccgctctg cggccccgag gacgacgccc agctccagct ggcccttagt
240
ttgagccgag aagagcatga taaggaggag cggatccgct gcggggatga cctgcggctg
300
cagatggcaa tcgaggagag caagagggag actgggggca aggaggagtc gtccctcatg
360
gaccttgctg acgtcttcac gccccagct cctgccccga ccacagaccc ctgggggggc
420
ccagcaccca tggctgct
438

```

<210> 740

<211> 146

<212> PRT

<213> Homo sapiens

<400> 740

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Leu | Arg | Glu | Glu | Arg | Ala | His | Ala | Leu | Lys | Thr | Lys | Glu | Lys | Leu |
| 1 | | | | 5 | | | | | 10 | | | | 15 | | |
| Ala | Gln | Thr | Ala | Thr | Ala | Ser | Ser | Ala | Ala | Val | Gly | Ser | Gly | Pro | Pro |
| | | 20 | | | | | | 25 | | | | 30 | | | |
| Pro | Glu | Ala | Glu | Gln | Ala | Trp | Pro | Gln | Ser | Ser | Gly | Glu | Glu | Glu | Leu |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Gln | Leu | Gln | Leu | Ala | Leu | Ala | Met | Ser | Lys | Glu | Glu | Ala | Asp | Gln | Pro |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Pro | Ser | Cys | Gly | Pro | Glu | Asp | Asp | Ala | Gln | Leu | Gln | Leu | Ala | Leu | Ser |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Leu | Ser | Arg | Glu | Glu | His | Asp | Lys | Glu | Glu | Arg | Ile | Arg | Arg | Gly | Asp |

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| | | | | 85 | | | | | 90 | | | | | 95 | | | | | |
| Asp | Leu | Arg | Leu | Gln | Met | Ala | Ile | Glu | Glu | Ser | Lys | Arg | Glu | Thr | Gly | | | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | | | |
| Gly | Lys | Glu | Glu | Ser | Ser | Leu | Met | Asp | Leu | Ala | Asp | Val | Phe | Thr | Pro | | | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | | | |
| Pro | Ala | Pro | Ala | Pro | Thr | Thr | Asp | Pro | Trp | Gly | Gly | Pro | Ala | Pro | Met | | | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | | | |
| Ala | Ala | | | | | | | | | | | | | | | | | | |
| 145 | | | | | | | | | | | | | | | | | | | |

<210> 741

<211> 726

<212> DNA

<213> Homo sapiens

<400> 741

```

gcctctctcc gaccgcgttg ttgtaaggat gtcgcgacgg tgcgcaaaaa tgaatatgtg
60
aatttgccgg tcattctgcct cgtcggggccc actgctagcg gaaaatcagg gctagcggtg
120
cgagtgtgcc gccgcttgta tgcgatgag caccgcgccg aaattattaa tactgactcg
180
atgggtggtgt atcgcgggat ggacattggc actgccaccc ctacactgcg cgagcagcgc
240
acggtagtgc atcacctggt gtcgattctt gatgtgactg tgccctcctc gctagtactg
300
atgcagacgc tggcccgta tgcgctgag gattgtctgt cgcgtggtgt catccctgtc
360
ttggtgggag ggtctgcgct gtacaccaag gccatcattg acgaaatgtc catcccgcca
420
actgatccgg aagtgagggc tcggtggcag gagaagctag atgccgaggg gccgcgagtt
480
ctgcatgacg agcttgcccc tcgcatccc aaggcggctg agtcaatctt gcccggcaac
540
ggcaggcgaa tcgtttcgtg ccctcgaagt ttattgaccc tgacagggtc ctttactgcc
600
accgatcccc gacgggaccc tccactggcc aagacggtgc aaatgggctt agaactgtcg
660
cgcaaagaca tagaccagcg tattgccgat cgggttgacc agatgtgggc atacggtttc
720
gtcgac
726

```

<210> 742

<211> 242

<212> PRT

<213> Homo sapiens

<400> 742

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| Ala | Ser | Leu | Arg | Pro | Arg | Cys | Cys | Lys | Asp | Val | Ala | Thr | Val | Arg | Lys | | | | |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | | | | | |
| Asn | Glu | Tyr | Val | Asn | Leu | Pro | Val | Ile | Cys | Leu | Val | Gly | Pro | Thr | Ala | | | | |
| | | | 20 | | | | 25 | | | | | 30 | | | | | | | |
| Ser | Gly | Lys | Ser | Gly | Leu | Ala | Val | Arg | Val | Cys | Arg | Arg | Leu | Tyr | Val | | | | |

```

      35              40              45
Asp Glu His Pro Ala Glu Ile Asn Thr Asp Ser Met Val Val Tyr
  50              55              60
Arg Gly Met Asp Ile Gly Thr Ala Thr Pro Thr Leu Arg Glu Gln Arg
  65              70              75              80
Thr Val Val His His Leu Val Ser Ile Leu Asp Val Thr Val Pro Ser
      85              90              95
Ser Leu Val Leu Met Gln Thr Leu Ala Arg Asp Ala Val Glu Asp Cys
      100              105              110
Leu Ser Arg Gly Val Ile Pro Val Leu Val Gly Gly Ser Ala Leu Tyr
      115              120              125
Thr Lys Ala Ile Ile Asp Glu Met Ser Ile Pro Pro Thr Asp Pro Glu
      130              135              140
Val Arg Ala Arg Trp Gln Glu Lys Leu Asp Ala Glu Gly Pro Arg Val
      145              150              155              160
Leu His Asp Glu Leu Ala Arg Arg Asp Pro Lys Ala Ala Glu Ser Ile
      165              170              175
Leu Pro Gly Asn Gly Arg Arg Ile Val Ser Cys Pro Arg Ser Leu Leu
      180              185              190
Thr Leu Thr Gly Ser Phe Thr Ala Thr Asp Pro Arg Arg Asp Pro Pro
      195              200              205
Leu Ala Lys Thr Val Gln Met Gly Leu Glu Leu Ser Arg Lys Asp Ile
      210              215              220
Asp Gln Arg Ile Ala Asp Arg Val Asp Gln Met Trp Ala Tyr Gly Phe
      225              230              235              240
Val Asp

```

<210> 743

<211> 430

<212> DNA

<213> Homo sapiens

<400> 743

```

naaaaaagtg atggttttcgg atctgtggcc agtcgtcttg caagaaatca ttatgacgtg
60
gatgaggggca acagcancat tcatgttaat caagacattg cgcgcagaac agggacggga
120
aagctattgg tacgagtgtg cccggcgcac gtgtactcag aggagcccga tggcactatt
180
tccgtggagt acgcagcgtg tctggagtgt ggcacttgtc tggcggttgc tgcgccaggg
240
tcgcttgaat ggcactatcc cgcaggtgca atgggtattt cgttcagaga aggatgaagt
300
ccttgtgggc gactgtaaag cgacatggcc gtcgctcggg aggaggaatt gtggtgtccg
360
caccaaatag tgctcaggat gaagttcgtc atggaaatcc ggctccaacc gtttcgggag
420
ctggtcgcga
430

```

<210> 744

<211> 98

<212> PRT

<213> Homo sapiens

<400> 744

```

Xaa Lys Ser Asp Gly Phe Gly Ser Val Ala Ser Arg Leu Ala Arg Asn
 1           5           10           15
His Tyr Asp Val Asp Glu Gly Asn Ser Xaa Ile His Val Asn Gln Asp
      20           25           30
Ile Ala Arg Arg Thr Gly Thr Gly Lys Leu Leu Val Arg Val Cys Pro
      35           40           45
Ala His Val Tyr Ser Glu Glu Pro Asp Gly Thr Ile Ser Val Glu Tyr
      50           55           60
Ala Ala Cys Leu Glu Cys Gly Thr Cys Leu Ala Val Ala Ala Pro Gly
65           70           75           80
Ser Leu Glu Trp His Tyr Pro Ala Gly Ala Met Gly Ile Ser Phe Arg
      85           90           95
Glu Gly

```

<210> 745

<211> 362

<212> DNA

<213> Homo sapiens

<400> 745

```

cggccgattg aagcgtcgct gcggtttgag tcggtgatgg atgcggtgga cggtgcttcg
60
gcgtcgtggg ggcgcatggc gcggtatttc atcgccgagc ttgaacgcag cagcgagttg
120
tatgagcagg cggcgtttac ccgcgatctg gaaagctcgc tgatcaaggg cctgatcctc
180
gcccagccga acaactactc cgaagaactg cgcgacgtac tcggcgtgaa gctgccgcat
240
tacttgattc gcgcgcggca gtacatccac gacaacgccc gcgaagccgt gcatctggaa
300
gacctggaag cgcgtgccgg ggtatcgcgg ttcaagttgt tcgatgcgtt tcgcaaatac
360
tt
362

```

<210> 746

<211> 108

<212> PRT

<213> Homo sapiens

<400> 746

```

Met Asp Ala Val Asp Gly Ala Ser Ala Ser Trp Trp Arg Met Ala Arg
 1           5           10           15
Tyr Phe Ile Ala Glu Leu Glu Arg Ser Ser Glu Leu Tyr Glu Gln Ala
      20           25           30
Ala Phe Thr Arg Asp Leu Glu Ser Ser Leu Ile Lys Gly Leu Ile Leu
      35           40           45
Ala Gln Pro Asn Asn Tyr Ser Glu Glu Leu Arg Asp Val Leu Gly Val
      50           55           60
Lys Leu Pro His Tyr Leu Ile Arg Ala Arg Gln Tyr Ile His Asp Asn

```

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 65 | | 70 | | 75 | | 80 | | | | | | | | | |
| Ala | Arg | Glu | Ala | Val | His | Leu | Glu | Asp | Leu | Glu | Thr | Ala | Ala | Gly | Val |
| | | 85 | | | | | | 90 | | | | | | 95 | |
| Ser | Arg | Phe | Lys | Leu | Phe | Asp | Ala | Phe | Arg | Lys | Tyr | | | | |
| | | 100 | | | | | | 105 | | | | | | | |

<210> 747

<211> 416

<212> DNA

<213> Homo sapiens

<400> 747

```

naccggttga tcgccgccga ccgtttcatc ccgcaatcac ccgacatggc ggcctatttt
60
ctgaatgccg atggcacgcc taaagccacc ggcacgctgc tcaagaaccc agcgtggcc
120
gccgtgttca aacgtatcgc caaggaagga ccggacgcgc tgtaccacgg gccgattgcc
180
gacgagatcg cgcgcaaggt tcagggcaac cgcaatgcgg gcagcctgtc gcaagcggac
240
ctcaaggctt acaccgcaa ggaacgcacg ccgctgtgca ccgactacaa gcaatatcag
300
gtgtgcggca tgccaccgcc gtcgtcaggg gggattgcgg tggcgagat cctcggcacg
360
ctgcaggccg tggaagcccg cgacccacgc ctggccatcg ccccatgaa accggt
416

```

<210> 748

<211> 138

<212> PRT

<213> Homo sapiens

<400> 748

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Ala | Leu | Ile | Ala | Ala | Asp | Arg | Phe | Ile | Pro | Gln | Ser | Pro | Asp | Met |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Ala | Tyr | Phe | Leu | Asn | Ala | Asp | Gly | Thr | Pro | Lys | Ala | Thr | Gly | Thr |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Leu | Leu | Lys | Asn | Pro | Ala | Leu | Ala | Ala | Val | Phe | Lys | Arg | Ile | Ala | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Glu | Gly | Pro | Asp | Ala | Leu | Tyr | His | Gly | Pro | Ile | Ala | Asp | Glu | Ile | Ala |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Arg | Lys | Val | Gln | Gly | Asn | Arg | Asn | Ala | Gly | Ser | Leu | Ser | Gln | Ala | Asp |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Leu | Lys | Ala | Tyr | Thr | Ala | Lys | Glu | Arg | Thr | Pro | Leu | Cys | Thr | Asp | Tyr |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Lys | Gln | Tyr | Gln | Val | Cys | Gly | Met | Pro | Pro | Pro | Ser | Ser | Gly | Gly | Ile |
| | | 100 | | | | | 105 | | | | | | 110 | | |
| Ala | Val | Ala | Gln | Ile | Leu | Gly | Thr | Leu | Gln | Ala | Val | Glu | Ala | Arg | Asp |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Pro | Arg | Leu | Ala | Ile | Ala | Pro | Met | Lys | Pro | | | | | | |
| | | 130 | | | | | 135 | | | | | | | | |

<210> 749

<211> 1211

<212> DNA

<213> Homo sapiens

<400> 749

nagtcctaga cgccagaccc gctcagaccc tcctgccagg tgacagccgc caagatgggg
 60
 tcttggggccc tgetgtggcc tcccctgctg ttcaccgggc tgctcgccg acccccgagg
 120
 accatggccc agggccagta ctgctctgtg aacaaggaca tctttgaagt agaggagaac
 180
 acaaatgtca ccgagccgct ggtggacatc cacgtcccgg agggccagga ggtgaccctc
 240
 ggagccttgt ccacccccctt tgcatttcgg atccaggga accagctgtt tctcaacgtg
 300
 actcctgatt acgaggagaa gtcactgctt gaggtcagc tgctgtgtca gagcggaggc
 360
 acattgggtga ccagcctaag ggtgttcgtg tcagtgtgtg acgtcaatga caatgcccc
 420
 gaattccctt ttaagaccaa ggagataagg gtggaggagg acacgaaagt gaactccacc
 480
 gtcacccccg agacgcaact gcaggctgag gaccgcgaca aggacgacat tctgttctac
 540
 accctccagg aaatgacagc aggtgccagt gactacttct ccctgggtgag tgtaaaccgt
 600
 cccgccctga ggctggaccg gccctggac ttctacgagc ggccgaacat gaccttctgg
 660
 ctgctggtgc gggacactcc gggggagaat gtggaaccca gccacactgc caccgccaca
 720
 ctagtgctga acgtggtgcc cgccgacctg cggcccccggt gggtcctgcc ctgcaccttc
 780
 tcagatggct acgtctgcat tcaagctcag taccacgggg ctgtcccccac ggggcacata
 840
 ctgccatctc cctcgtcctt gcgtcccga cccatctacg ctgaggacgg agaccgaggc
 900
 atcaaccagc ccacatctta cagcatcttt aggggaaacg tgaatggtac attcatcatc
 960
 caccagact cgggcaacct caccgtggcc aggagtgtcc ccagcccat gaccttcctt
 1020
 ctgctggtga agggccaaca ggccgacctt gcccgctact cagtgaacca ggtcaccgtg
 1080
 gagggctgtg gctgcggccg ggagcccgc ccgcttcccc cagagcctgt atcgtggcac
 1140
 cgtggcgcgt ggcgctggag cgggcgttgt ggtcaaggat gcagctgcc cttttcagcc
 1200
 tctgaggatc c
 1211

<210> 750

<211> 385

<212> PRT

<213> Homo sapiens

<400> 750

Met Gly Ser Trp Ala Leu Leu Trp Pro Pro Leu Leu Phe Thr Gly Leu

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | | 5 | | 10 | | 15 | | | | | | | | | |
| Leu | Val | Arg | Pro | Pro | Gly | Thr | Met | Ala | Gln | Ala | Gln | Tyr | Cys | Ser | Val |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Asn | Lys | Asp | Ile | Phe | Glu | Val | Glu | Glu | Asn | Thr | Asn | Val | Thr | Glu | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Val | Asp | Ile | His | Val | Pro | Glu | Gly | Gln | Glu | Val | Thr | Leu | Gly | Ala |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Leu | Ser | Thr | Pro | Phe | Ala | Phe | Arg | Ile | Gln | Gly | Asn | Gln | Leu | Phe | Leu |
| 65 | | | | 70 | | | | | | 75 | | | | 80 | |
| Asn | Val | Thr | Pro | Asp | Tyr | Glu | Glu | Lys | Ser | Leu | Leu | Glu | Ala | Gln | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Leu | Cys | Gln | Ser | Gly | Gly | Thr | Leu | Val | Thr | Gln | Leu | Arg | Val | Phe | Val |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ser | Val | Leu | Asp | Val | Asn | Asp | Asn | Ala | Pro | Glu | Phe | Pro | Phe | Lys | Thr |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Lys | Glu | Ile | Arg | Val | Glu | Glu | Asp | Thr | Lys | Val | Asn | Ser | Thr | Val | Ile |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Pro | Glu | Thr | Gln | Leu | Gln | Ala | Glu | Asp | Arg | Asp | Lys | Asp | Asp | Ile | Leu |
| 145 | | | | 150 | | | | | | 155 | | | | 160 | |
| Phe | Tyr | Thr | Leu | Gln | Glu | Met | Thr | Ala | Gly | Ala | Ser | Asp | Tyr | Phe | Ser |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Leu | Val | Ser | Val | Asn | Arg | Pro | Ala | Leu | Arg | Leu | Asp | Arg | Pro | Leu | Asp |
| | | 180 | | | | | 185 | | | | | | 190 | | |
| Phe | Tyr | Glu | Arg | Pro | Asn | Met | Thr | Phe | Trp | Leu | Leu | Val | Arg | Asp | Thr |
| | 195 | | | | | 200 | | | | | | 205 | | | |
| Pro | Gly | Glu | Asn | Val | Glu | Pro | Ser | His | Thr | Ala | Thr | Ala | Thr | Leu | Val |
| | 210 | | | | 215 | | | | | | 220 | | | | |
| Leu | Asn | Val | Val | Pro | Ala | Asp | Leu | Arg | Pro | Pro | Trp | Phe | Leu | Pro | Cys |
| 225 | | | | 230 | | | | | 235 | | | | | 240 | |
| Thr | Phe | Ser | Asp | Gly | Tyr | Val | Cys | Ile | Gln | Ala | Gln | Tyr | His | Gly | Ala |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Val | Pro | Thr | Gly | His | Ile | Leu | Pro | Ser | Pro | Leu | Val | Leu | Arg | Pro | Gly |
| | | 260 | | | | | 265 | | | | | 270 | | | |
| Pro | Ile | Tyr | Ala | Glu | Asp | Gly | Asp | Arg | Gly | Ile | Asn | Gln | Pro | Ile | Ile |
| | 275 | | | | | 280 | | | | | 285 | | | | |
| Tyr | Ser | Ile | Phe | Arg | Gly | Asn | Val | Asn | Gly | Thr | Phe | Ile | Ile | His | Pro |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Asp | Ser | Gly | Asn | Leu | Thr | Val | Ala | Arg | Ser | Val | Pro | Ser | Pro | Met | Thr |
| 305 | | | | 310 | | | | | | 315 | | | | 320 | |
| Phe | Leu | Leu | Leu | Val | Lys | Gly | Gln | Gln | Ala | Asp | Leu | Ala | Arg | Tyr | Ser |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Val | Thr | Gln | Val | Thr | Val | Glu | Gly | Cys | Gly | Cys | Gly | Arg | Glu | Pro | Ala |
| | | 340 | | | | | 345 | | | | | | 350 | | |
| Pro | Leu | Pro | Pro | Glu | Pro | Val | Ser | Trp | His | Arg | Gly | Ala | Trp | Arg | Trp |
| | 355 | | | | | 360 | | | | | 365 | | | | |
| Ser | Gly | Arg | Cys | Gly | Gln | Gly | Cys | Ser | Cys | Pro | Phe | Ser | Ala | Ser | Glu |
| | 370 | | | | 375 | | | | | | 380 | | | | |

Asp
385

<210> 751

<211> 345

<212> DNA

<213> Homo sapiens

<400> 751

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60
gcaggcggcg ggctgtcgcg caccgaggag aagctcgctg agatgtcgaa cggtgcacg
120
tgctgcacgc tgcgcgacga cctgatgcag gaagtggcga gactggcggg cgaaggccgc
180
ttcgatgcgc tggatcatga gagcaccggc gtgtccgagc cgatgccggt cggccccacg
240
ttcgatttcc gtgaccagga cggcgtctcg ctccgcgacg tcgcgcggtt ggataccatg
300
gtcacgctcg tcgacgcgcg gtccttcctg cgcgactacg gctcg
345

<210> 752

<211> 115

<212> PRT

<213> Homo sapiens

<400> 752

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Val | Ala | Val | Ile | Val | Asn | Asp | Met | Ser | Glu | Val | Asn | Ile | Asp | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Leu | Val | Ala | Ala | Gly | Gly | Gly | Leu | Ser | Arg | Thr | Glu | Glu | Lys | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | Glu | Met | Ser | Asn | Gly | Cys | Ile | Cys | Cys | Thr | Leu | Arg | Asp | Asp | Leu |
| | | 35 | | | | 40 | | | | | | 45 | | | |
| Met | Gln | Glu | Val | Ala | Arg | Leu | Ala | Gly | Glu | Gly | Arg | Phe | Asp | Ala | Leu |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Val | Ile | Glu | Ser | Thr | Gly | Val | Ser | Glu | Pro | Met | Pro | Val | Ala | Ala | Thr |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Phe | Asp | Phe | Arg | Asp | Gln | Asp | Gly | Val | Ser | Leu | Ala | Asp | Val | Ala | Arg |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Leu | Asp | Thr | Met | Val | Thr | Val | Val | Asp | Ala | Ala | Ser | Phe | Leu | Arg | Asp |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Tyr | Gly | Ser | | | | | | | | | | | | | |
| | | 115 | | | | | | | | | | | | | |

<210> 753

<211> 352

<212> DNA

<213> Homo sapiens

<400> 753

gcgcgccagt acgccaagac cgtccgcaag gaccgcaagg gcgaacggcg gcgtcggggc
60
gcgtcggact agtccacgat gcatccgaac cgcgccttcc gctttgccga tgatgtctcg
120
atgctcgatt tcgcggccaa gcgagccttt gcgcacatct tcgtgagcac gcccgagggg
180
cctatggtag cgcattcccc ggtaacgccc ttcgacggag ccttcgctt ccatgtcgcg
240
cgcgccaatc ggatcgcgcg gcacctggat ggcgcgacgc tgctgctcag catcagcgcg
300

accgacggct atatcagccc gagctggtac gccgacccgc agggaccaca gt
352

<210> 754
<211> 91
<212> PRT
<213> Homo sapiens

<400> 754
Met His Pro Asn Arg Ala Phe Arg Phe Ala Asp Asp Val Ser Met Leu
1 5 10 15
Asp Phe Ala Ala Lys Arg Ala Phe Ala His Ile Phe Val Ser Thr Pro
20 25 30
Glu Gly Pro Met Val Ala His Ala Pro Val Thr Pro Phe Asp Gly Ala
35 40 45
Phe Arg Phe His Val Ala Arg Gly Asn Arg Ile Ala Arg His Leu Asp
50 55 60
Gly Ala Thr Leu Leu Leu Ser Ile Ser Ala Thr Asp Gly Tyr Ile Ser
65 70 75 80
Pro Ser Trp Tyr Ala Asp Pro Gln Gly Pro Gln
85 90

<210> 755
<211> 301
<212> DNA
<213> Homo sapiens

<400> 755
tgggatgcag ggtctttctt ctccaaggat ttcattcctg gagggagaaa agggccccag
60
ctgtctgccca tcaaaccggg ttgccgggct ggagctcctc ccaggcccgt gtgaggaaga
120
gcaaaggccg gcaggggctc gatgggacca gtcgctcgct caggcccagg aaaaccacac
180
agctgggggc tgtcaggatt ggaccagggt caggccggcc aggcgatggc gggaaaagca
240
ggcccactct gcagacctca atgtctcagg tgcactgcag ggcaaccccg cctaccccg
300
g
301

<210> 756
<211> 99
<212> PRT
<213> Homo sapiens

<400> 756
Met Gln Gly Leu Ser Ser Pro Arg Ile Ser Phe Leu Glu Gly Glu Lys
1 5 10 15
Gly Pro Ser Cys Leu Pro Ser Asn Arg Val Ala Gly Leu Glu Leu Leu
20 25 30
Pro Gly Pro Cys Glu Glu Glu Gln Arg Pro Ala Gly Ala Arg Trp Asp
35 40 45
Gln Ser Leu Ala Gln Ala Gln Glu Asn His Thr Ala Gly Gly Cys Gln

| | | | | |
|---|----|----|----|----|
| 50 | | 55 | | 60 |
| Asp Trp Thr Arg Val Arg Pro Ala Arg Arg Trp Arg Glu Lys Gln Ala | | | | |
| 65 | 70 | 75 | 80 | |
| His Ser Ala Asp Leu Asn Val Ser Gly Ala Leu Gln Gly Asn Pro Ala | | | | |
| | 85 | 90 | 95 | |
| Tyr Pro Gly | | | | |

<210> 757

<211> 311

<212> DNA

<213> Homo sapiens

<400> 757

actgaggcga tcgccagagg ggtgggcgtg cgagggctgc tcaacatcca gttcgccctg
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gtctccgatg ttctctact catcgaggcc aacccaggg catcgcgac agtccccctt
120
gtctcaaagg catccggcgt gcagctcgcc aaagcggcgg ccctcatcat gacaggggag
180
acgatcgct cgctcaggcg ctccggccac ctgcccagg cgcacgccgc cgtcaccgat
240
cccgatgacc cgatcgccgt caaggaggcg gtcctaccct tcaaacgatt ccgcaccacc
300
gagggacgcy t
311

<210> 758

<211> 103

<212> PRT

<213> Homo sapiens

<400> 758

| | | | | |
|---|-----|----|----|--|
| Thr Glu Ala Ile Ala Arg Gly Val Gly Val Arg Gly Leu Leu Asn Ile | | | | |
| 1 | 5 | 10 | 15 | |
| Gln Phe Ala Leu Val Ser Asp Val Leu Tyr Val Ile Glu Ala Asn Pro | | | | |
| | 20 | 25 | 30 | |
| Arg Ala Ser Arg Thr Val Pro Phe Val Ser Lys Ala Ser Gly Val Gln | | | | |
| | 35 | 40 | 45 | |
| Leu Ala Lys Ala Ala Ala Leu Ile Met Thr Gly Glu Thr Ile Ala Ser | | | | |
| | 50 | 55 | 60 | |
| Leu Arg Arg Ser Gly His Leu Pro Glu Ala Asp Ala Ala Val Thr Asp | | | | |
| 65 | 70 | 75 | 80 | |
| Pro Asp Asp Pro Ile Ala Val Lys Glu Ala Val Leu Pro Phe Lys Arg | | | | |
| | 85 | 90 | 95 | |
| Phe Arg Thr Thr Glu Gly Arg | | | | |
| | 100 | | | |

<210> 759

<211> 391

<212> DNA

<213> Homo sapiens

<400> 759

gtgcacaccg gcaagctggt gtggaactgg gacagcggca acccggacga cactacgccg
 60
 attgccgagg gcaagaccta caccgcaac tcgccgaaca tgtgggtccat gttcgccgtc
 120
 gacgaaaaac tcggcatgct ctacctgccg atgggcaacc agaccccgga ccagttcggg
 180
 ggctaccgca cgctcgctc ggaactgcac gctgccggcc tgacagcgtt ggatatcgac
 240
 actggtaaag tgcgctggca ctaccagttc acccaccatg acctgtggga catggacgtg
 300
 ggcggccagc cgagcctgat cgacatcaag accgccgccg gcgtgaaaca agccgtgatg
 360
 gcctcgacca agcaaggcag catctacgcg t
 391

<210> 760

<211> 130

<212> PRT

<213> Homo sapiens

<400> 760

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | His | Thr | Gly | Lys | Leu | Val | Trp | Asn | Trp | Asp | Ser | Gly | Asn | Pro | Asp |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Asp | Thr | Thr | Pro | Ile | Ala | Glu | Gly | Lys | Thr | Tyr | Thr | Arg | Asn | Ser | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asn | Met | Trp | Ser | Met | Phe | Ala | Val | Asp | Glu | Lys | Leu | Gly | Met | Leu | Tyr |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Leu | Pro | Met | Gly | Asn | Gln | Thr | Pro | Asp | Gln | Phe | Gly | Gly | Tyr | Arg | Thr |
| | | | 50 | | | 55 | | | | | 60 | | | | |
| Pro | Ala | Ser | Glu | Leu | His | Ala | Ala | Gly | Leu | Thr | Ala | Leu | Asp | Ile | Asp |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Thr | Gly | Lys | Val | Arg | Trp | His | Tyr | Gln | Phe | Thr | His | His | Asp | Leu | Trp |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Asp | Met | Asp | Val | Gly | Gly | Gln | Pro | Ser | Leu | Ile | Asp | Ile | Lys | Thr | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Gly | Val | Lys | Gln | Ala | Val | Met | Ala | Ser | Thr | Lys | Gln | Gly | Ser | Ile |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Tyr | Ala | | | | | | | | | | | | | | |
| | 130 | | | | | | | | | | | | | | |

<210> 761

<211> 324

<212> DNA

<213> Homo sapiens

<400> 761

cctaggtagg cccaaagggg cctaactttc ttgctgccct ggtggagcaa gaaatatctt
 60
 ctaggagagg ccaatccttc cctgccccac agctccttct ctgcaaagct caggggggcaa
 120
 tcaggtacct cctgccaag agggcccat ggttcctcgc ctaaggaagg cagggcgggg
 180
 cattgggagc cgttgacagc tgggctcagc tggggggagg ggtcagtttg ggagcaggtg
 240

cagatttcag ggaggggggg gcctaaaggg aagtagggat cttggtaggc tgcaaaattt
 300
 tcctcccat ccccatcca caga
 324

<210> 762
 <211> 105
 <212> PRT
 <213> Homo sapiens

<400> 762
 Met Gly Asp Gly Glu Glu Asn Phe Ala Ala Tyr Gln Asp Pro Tyr Phe
 1 5 10 15
 Pro Leu Gly Pro Pro Leu Pro Glu Ile Cys Thr Cys Ser Gln Thr Asp
 20 25 30
 Pro Ser Pro Gln Leu Ser Pro Ala Val Asn Gly Ser Gln Cys Pro Ala
 35 40 45
 Leu Pro Ser Leu Gly Glu Glu Pro Trp Gly Pro Leu Gly Gln Glu Val
 50 55 60
 Pro Asp Cys Pro Leu Ser Phe Ala Glu Lys Glu Leu Trp Gly Arg Glu
 65 70 75 80
 Gly Leu Ala Ser Pro Arg Arg Tyr Phe Leu Leu His Gln Gly Ser Lys
 85 90 95
 Lys Val Arg Pro Leu Trp Ala Tyr Leu
 100 105

<210> 763
 <211> 301
 <212> DNA
 <213> Homo sapiens

<400> 763
 acgcgttatg ggcggcccg atgggcgatg cgctatccca cacctcgatg atggcggaca
 60
 tcctcggcgg tgtgctggaa gtggcgcca atatcgcat tactgcgggc gcgaccgctg
 120
 ccgcggtggc cgccaccggc ttaccgagg ccaccggcgg cctcggctgc ttctgctgg
 180
 gcgctgcctt gggcaccatt gccggcctgg ccatgagcaa cattggcgcg gacacagggc
 240
 tgaccaagat atgcaatgcc ttttaacaacg ccttatttgc gccaccgtg catgcgaaca
 300
 t
 301

<210> 764
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 764
 Met Phe Ala Cys Thr Val Gly Ala Asn Lys Ala Leu Leu Lys Ala Leu
 1 5 10 15
 His Ile Leu Val Ser Pro Val Ser Ala Pro Met Leu Leu Met Ala Arg

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | | 5 | | 10 | | 15 | | | | | | | | | |
| Gly | Glu | Val | Leu | Arg | Tyr | Lys | Arg | Lys | Leu | Arg | Glu | Ala | Gln | Ser | Asp |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Leu | Asn | Lys | Thr | Arg | Leu | Arg | Ser | Gly | Ser | Ala | Leu | Leu | Gln | Ser | Gln |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Ser | Thr | Glu | Asp | Pro | Lys | Asp | Glu | Pro | Ala | Glu | Leu | Lys | Pro | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Gly | Asp | Leu | Ser | Ser | Gln | Ser | Ser | Ala | Ser | Lys | Ala | Ser | Gln | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Asp | Ala | Asn | Glu | Ile | Lys | Ser | Lys | Arg | Asp | Glu | Glu | Glu | Arg | Glu | Arg |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Glu | Arg | Arg | Glu | Lys | Glu | Arg | Glu | Arg | Glu | Arg | Glu | Arg | Glu | Lys | Glu |
| | | 100 | | | | | 105 | | | | | 110 | | | |
| Lys | Glu | Arg | Glu | Arg | Glu | Lys | Gln | Lys | Leu | Lys | Glu | Ser | Glu | Lys | Glu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Arg | Asp | Ser | Ala | Lys | Asp | Lys | Glu | Lys | Gly | Lys | His | Asp | Asp | Gly | Arg |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Lys | Lys | Glu | Ala | Glu | Ile | Ile | Lys | Gln | Leu | Lys | Ile | Glu | Leu | Lys | Lys |
| 145 | | | | | 150 | | | | 155 | | | | | | 160 |
| Ala | Gln | Glu | Ser | Gln | Lys | Glu | Met | Lys | Leu | Leu | Leu | Asp | Met | Tyr | Arg |
| | | | 165 | | | | | 170 | | | | | 175 | | |
| Ser | Ala | Pro | Lys | Glu | Gln | Arg | Asp | Lys | Val | Gln | Leu | Met | Ala | Ala | Glu |
| | | 180 | | | | | 185 | | | | | 190 | | | |
| Lys | Lys | Ser | Lys | Ala | Glu | Leu | Glu | Asp | Leu | Arg | Gln | Arg | Leu | Lys | Asp |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Leu | Glu | Asp | Lys | Glu | Lys | Lys | Glu | Asn | Lys | Lys | Met | Ala | Asp | Glu | Asp |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ala | Leu | Arg | Lys | Ile | Arg | Ala | Val | Glu | Glu | Gln | Ile | Glu | Tyr | Leu | Gln |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Lys | Lys | Leu | | | | | | | | | | | | | |

<210> 767

<211> 431

<212> DNA

<213> Homo sapiens

<400> 767

gctagctcgc tcgcactcat tctcgggagg cttccccgcg ccggccgcgt cccgcccgt
60

ccccgcacc agaagttcct ctgcgcgtcc gacggcgaca tgggcgtccc cacggccccg
120

gaggccggca gctggcgctg gggatccctg ctcttcgctc tcttcctggc tgcgtcccta
180

ggtccggtgg cagccttcaa ggtcgccacg ccgtattccc tgtatgtctg tcccagagggg
240

cagaacgtca cctcacctg caggctcttg ggccctgtgg acaaagggca cgatgtgacc
300

ttctacaaga cgtggtaccg cagctcgagg ggcgaggtgc agacctgctc agagcgccgg
360

cccatccgca acctcacgtt ccaggacctt cacctgcacc atggaggcca ccaggctgcc
420

aacaccagcc a

431

<210> 768
 <211> 110
 <212> PRT
 <213> Homo sapiens

<400> 768
 Met Gly Val Pro Thr Ala Pro Glu Ala Gly Ser Trp Arg Trp Gly Ser
 1 5 10 15
 Leu Leu Phe Ala Leu Phe Leu Ala Ala Ser Leu Gly Pro Val Ala Ala
 20 25 30
 Phe Lys Val Ala Thr Pro Tyr Ser Leu Tyr Val Cys Pro Glu Gly Gln
 35 40 45
 Asn Val Thr Leu Thr Cys Arg Leu Leu Gly Pro Val Asp Lys Gly His
 50 55 60
 Asp Val Thr Phe Tyr Lys Thr Trp Tyr Arg Ser Ser Arg Gly Glu Val
 65 70 75 80
 Gln Thr Cys Ser Glu Arg Arg Pro Ile Arg Asn Leu Thr Phe Gln Asp
 85 90 95
 Leu His Leu His His Gly Gly His Gln Ala Ala Asn Thr Ser
 100 105 110

<210> 769
 <211> 422
 <212> DNA
 <213> Homo sapiens

<400> 769
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 60
 cgacttcgaa ctccatcaag tgatttttgc ggtcgacgaa tctggtttcc gtatgaaaga
 120
 acggtatgtt ttgtatgtcg cggccctgcc actcaaacct caccgtgtca cccacctcaa
 180
 aaaaatcccc ggtcggccca caaataaatc aattgcgccg ctctccgag ttcttccatg
 240
 tcaacgatct cccctggctg ctcaagccaa ggccctcgcg gccgtgggac tccaagggtg
 300
 acgttgaccc gactgatttc ggaccagttg gcgtcggtat tgggggcagg gtagttaccg
 360
 cccatgtcga tgatctacat cgccaccggc agcgtgtctt cgtagtcgtc atgcctgac
 420
 an
 422

<210> 770
 <211> 99
 <212> PRT
 <213> Homo sapiens

<400> 770
 Met Phe Cys Met Ser Arg Pro Cys His Ser Asn Leu Thr Val Ser Pro
 1 5 10 15
 Thr Ser Lys Lys Ser Arg Val Gly Pro Gln Ile Asn Gln Leu Arg Arg

[illegible]

<210> 771

<211> 369

<212> DNA

<213> Homo sapiens

<400> 771

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gacctacgcgc aattcctcgc gggatatggcg tttaacaatg cgtctctcgg gtatgtgcat
60
gcaatggcgc atcagctggg cggtttttac gatctgccgc acggcgtgtg caatgcgata
120
ctgttgccac acgtgcagac gtttaactgc aaagtggcgg cctcgcgcct gcgtgattgc
180
gcccaggcca tgggtgtcga tgtcagtcaa atgacagcag aacagggcgc acaggcgtgt
240
atcgcacaga ttcgctctct ggcacgtcag gtgaatatcc cggtgggatt gcgtgacctc
300
aacgtgaagg aagcggactt cccgattctg gcgaccaacg cgctaaaaga ccctgtgggt
360
ttgattaat
369

```

<210> 772

<211> 123

<212> PRT

<213> Homo sapiens

<400> 772

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Tyr | Ala | Gln | Phe | Leu | Ala | Gly | Met | Ala | Phe | Asn | Asn | Ala | Ser | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Tyr | Val | His | Ala | Met | Ala | His | Gln | Leu | Gly | Gly | Phe | Tyr | Asp | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Pro | His | Gly | Val | Cys | Asn | Ala | Ile | Leu | Leu | Pro | His | Val | Gln | Thr | Phe |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Asn | Cys | Lys | Val | Ala | Ala | Ser | Arg | Leu | Arg | Asp | Cys | Ala | Gln | Ala | Met |
| | | | 50 | | | 55 | | | | | 60 | | | | |
| Gly | Val | Asp | Val | Ser | Gln | Met | Thr | Ala | Glu | Gln | Gly | Ala | Gln | Ala | Cys |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ile | Ala | Glu | Ile | Arg | Ser | Leu | Ala | Arg | Gln | Val | Asn | Ile | Pro | Val | Gly |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Leu | Arg | Asp | Leu | Asn | Val | Lys | Glu | Ala | Asp | Phe | Pro | Ile | Leu | Ala | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asn | Ala | Leu | Lys | Asp | Pro | Val | Gly | Leu | Ile | Asn | | | | | |

115

120

<210> 773
 <211> 309
 <212> DNA
 <213> Homo sapiens

<400> 773
 ccgccgttgc cggcgggtgga ttttctggta ggcttgaatc agcgctggc tgccgacatc
 60
 ggttacttga tccgcgtgga gccgggcgta caaactccgg aattcacctt ggaaaacgcc
 120
 tccggttcct gccgggattc ggcggtggtg ctggtgcaac tgctgcgcaa cctgggcctg
 180
 gcggcgcgat ttgtgtctgg ctatctgatc caactgaccg ccgacgtcaa agccctcgac
 240
 ggcccgctccg gcaccgaggt ggatttcacc gacctgcatg cctgggtgca agtgtatttg
 300
 cccggcgcc
 309

<210> 774
 <211> 103
 <212> PRT
 <213> Homo sapiens

<400> 774
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 1 5 10 15
 Ala Ala Asp Ile Gly Tyr Leu Ile Arg Val Glu Pro Gly Val Gln Thr
 20 25 30
 Pro Glu Phe Thr Leu Glu Asn Ala Ser Gly Ser Cys Arg Asp Ser Ala
 35 40 45
 Trp Leu Leu Val Gln Leu Leu Arg Asn Leu Gly Leu Ala Ala Arg Phe
 50 55 60
 Val Ser Gly Tyr Leu Ile Gln Leu Thr Ala Asp Val Lys Ala Leu Asp
 65 70 75 80
 Gly Pro Ser Gly Thr Glu Val Asp Phe Thr Asp Leu His Ala Trp Cys
 85 90 95
 Glu Val Tyr Leu Pro Gly Ala
 100

<210> 775
 <211> 4125
 <212> DNA
 <213> Homo sapiens

<400> 775
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 60
 atctcatctg acgtgagttc aagtacagat cacacgcca ctaaagcca gaagaatgtg
 120
 gctaccagcg aagactccga cctgagcatg cgcacactga gcacgcccag cccagccctg
 180

atatgtccac cgaatctccc aggatttcag aatggaaggg gctcgtccac ctctcgtcc
240
tccatcaccg gggagacggt ggccatggtg cactccccgc ccccgacccg cctcacacac
300
ccgctcatcc ggctcgctc cagaccccag aaggatcagg ccagcataga ccggctccccg
360
gaccactcca tgggtgcagat cttctccttc ctgcccacca accagctgtg ccgctgcgcg
420
cgagtgtgcc gccgctggta caacctggcc tgggacccgc ggctctggag gactatccgc
480
ctgacgggcg agaccatcaa cgtggaccgc gccctcaagg tgctgacccg cagactctgc
540
caggacaccc ccaacgtgtg tctcatgctg gaaaccgtaa ctgtcagtgg ctgcaggcgg
600
ctcacagacc gagggctgta caccatcgcc cagtgtgtcc ccgaactgag gcgactggaa
660
gtctcaggct gttacaatat ctccaacgag gccgtctttg atgtggtgtc cctctgccct
720
aatctggagc acctggatgt gtcaggatgc tccaaagtga cctgcatcag cttgacccgg
780
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840
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 4020
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 4125

<210> 776

<211> 483

<212> PRT

<213> Homo sapiens

<400> 776

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Gly | Ser | Glu | Gly | Lys | Gly | Ser | Ser | Ser | Ile | Ser | Ser | Asp | Val | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ser | Ser | Thr | Asp | His | Thr | Pro | Thr | Lys | Ala | Gln | Lys | Asn | Val | Ala | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Glu | Asp | Ser | Asp | Leu | Ser | Met | Arg | Thr | Leu | Ser | Thr | Pro | Ser | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Leu | Ile | Cys | Pro | Pro | Asn | Leu | Pro | Gly | Phe | Gln | Asn | Gly | Arg | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Ser | Thr | Ser | Ser | Ser | Ser | Ile | Thr | Gly | Glu | Thr | Val | Ala | Met | Val |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| His | Ser | Pro | Pro | Pro | Thr | Arg | Leu | Thr | His | Pro | Leu | Ile | Arg | Leu | Ala |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Ser | Arg | Pro | Gln | Lys | Asp | Gln | Ala | Ser | Ile | Asp | Arg | Leu | Pro | Asp | His |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Ser | Met | Val | Gln | Ile | Phe | Ser | Phe | Leu | Pro | Thr | Asn | Gln | Leu | Cys | Arg |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Cys | Ala | Arg | Val | Cys | Arg | Arg | Trp | Tyr | Asn | Leu | Ala | Trp | Asp | Pro | Arg |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Leu | Trp | Arg | Thr | Ile | Arg | Leu | Thr | Gly | Glu | Thr | Ile | Asn | Val | Asp | Arg |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |
| Ala | Leu | Lys | Val | Leu | Thr | Arg | Arg | Leu | Cys | Gln | Asp | Thr | Pro | Asn | Val |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Cys | Leu | Met | Leu | Glu | Thr | Val | Thr | Val | Ser | Gly | Cys | Arg | Arg | Leu | Thr |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | 180 | | | | 185 | | | | 190 | | | | |
| Asp | Arg | Gly | Leu | Tyr | Thr | Ile | Ala | Gln | Cys | Cys | Pro | Glu | Leu | Arg | Arg |
| | | | 195 | | | | 200 | | | | 205 | | | | |
| Leu | Glu | Val | Ser | Gly | Cys | Tyr | Asn | Ile | Ser | Asn | Glu | Ala | Val | Phe | Asp |
| | | | 210 | | | | 215 | | | | 220 | | | | |
| Val | Val | Ser | Leu | Cys | Pro | Asn | Leu | Glu | His | Leu | Asp | Val | Ser | Gly | Cys |
| 225 | | | 230 | | | | 235 | | | | 240 | | | | |
| Ser | Lys | Val | Thr | Cys | Ile | Ser | Leu | Thr | Arg | Glu | Ala | Ser | Ile | Lys | Leu |
| | | | 245 | | | | 250 | | | | 255 | | | | |
| Ser | Pro | Leu | His | Gly | Lys | Gln | Ile | Ser | Ile | Arg | Tyr | Leu | Asp | Met | Thr |
| | | | 260 | | | | 265 | | | | 270 | | | | |
| Asp | Cys | Phe | Val | Leu | Glu | Asp | Glu | Gly | Leu | His | Thr | Ile | Ala | Ala | His |
| | | | 275 | | | | 280 | | | | 285 | | | | |
| Cys | Thr | Gln | Leu | Thr | His | Leu | Tyr | Leu | Arg | Arg | Cys | Val | Arg | Leu | Thr |
| 290 | | | 295 | | | | 300 | | | | | | | | |
| Asp | Glu | Gly | Leu | Arg | Tyr | Leu | Val | Ile | Tyr | Cys | Ala | Ser | Ile | Lys | Glu |
| 305 | | | 310 | | | | 315 | | | | 320 | | | | |
| Leu | Ser | Val | Ser | Asp | Cys | Arg | Phe | Val | Ser | Asp | Phe | Gly | Leu | Arg | Glu |
| | | | 325 | | | | 330 | | | | 335 | | | | |
| Ile | Ala | Lys | Leu | Glu | Ser | Arg | Leu | Arg | Tyr | Leu | Ser | Ile | Ala | His | Cys |
| | | | 340 | | | | 345 | | | | 350 | | | | |
| Gly | Arg | Val | Thr | Asp | Val | Gly | Ile | Arg | Tyr | Val | Ala | Lys | Tyr | Cys | Ser |
| | | | 355 | | | | 360 | | | | 365 | | | | |
| Lys | Leu | Arg | Tyr | Leu | Asn | Ala | Arg | Gly | Cys | Glu | Gly | Ile | Thr | Asp | His |
| 370 | | | 375 | | | | 380 | | | | | | | | |
| Gly | Val | Glu | Tyr | Leu | Ala | Lys | Asn | Cys | Thr | Lys | Leu | Lys | Ser | Leu | Asp |
| 385 | | | 390 | | | | 395 | | | | 400 | | | | |
| Ile | Gly | Lys | Cys | Pro | Leu | Val | Ser | Asp | Thr | Gly | Leu | Glu | Cys | Leu | Ala |
| | | | 405 | | | | 410 | | | | 415 | | | | |
| Leu | Asn | Cys | Phe | Asn | Leu | Lys | Arg | Leu | Ser | Leu | Lys | Ser | Cys | Glu | Ser |
| | | | 420 | | | | 425 | | | | 430 | | | | |
| Ile | Thr | Gly | Gln | Gly | Leu | Gln | Ile | Val | Ala | Ala | Asn | Cys | Phe | Asp | Leu |
| 435 | | | 440 | | | | 445 | | | | | | | | |
| Gln | Thr | Leu | Asn | Val | Gln | Asp | Cys | Glu | Val | Ser | Val | Glu | Ala | Leu | Arg |
| 450 | | | 455 | | | | 460 | | | | | | | | |
| Phe | Val | Lys | Arg | His | Cys | Lys | Arg | Cys | Val | Ile | Glu | His | Thr | Asn | Pro |
| 465 | | | 470 | | | | 475 | | | | 480 | | | | |
| Ala | Phe | Phe | | | | | | | | | | | | | |

<210> 777

<211> 705

<212> DNA

<213> Homo sapiens

<400> 777

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caccaatctg ctctttaatg ccagactgat ggctctaaca atccttatta actccttttt
120

gtggccttcaa ggaaaaacaa aaacctcttc tctcattcac cacctctagg ccaggagaaa
180

ttatTTTTTgg ttcaggcttt cacagtgggg gtctgaaagt gaccagtcta gaaaaggatg
240

actcagcaaa aggagagctc tgaaggtccc tgaggcggca cgggtccagca ttattaggtc
300
acatggtatg acctgaaaca aatacgttct tcccaaagtgt ggcaggaccg ggagagcttc
360
tcaccaggag ggaaccgccg caatgaccgc cggacgtcca gcaacacttg ttggtagtcc
420
ttgctcatct gccgtaggtt cttccctgat ataggaggtg ggtcattggc attgacattg
480
aggagcttgg gccacacttt tcgctctgac tcatcagtca ggagccctcc ttcactgata
540
gccatgcgtc taagggcagc cacatcagtg ggatcactgt tcagagcctg gtgtatctct
600
aacactttct ttttcctttt ggcgtaaag tctgccttct ccgcgccgcc gtcccagtgg
660
ccggaggtgg gccgtccctt gcgcactccg gaggccatcc ccggg
705

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<210> 778
<211> 134
<212> PRT
<213> Homo sapiens
```

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<400> 778
Met Ala Ser Gly Val Arg Arg Gly Arg Pro Thr Ser Gly His Trp Asp
 1          5          10          15
Gly Gly Ala Glu Lys Ala Asp Phe Asn Ala Lys Arg Lys Lys Lys Val
          20          25          30
Leu Glu Ile His Gln Ala Leu Asn Ser Asp Pro Thr Asp Val Ala Ala
          35          40          45
Leu Arg Arg Met Ala Ile Ser Glu Gly Gly Leu Leu Thr Asp Glu Ile
          50          55          60
Arg Arg Lys Val Trp Pro Lys Leu Leu Asn Val Asn Ala Asn Asp Pro
65          70          75          80
Pro Pro Ile Ser Gly Lys Asn Leu Arg Gln Met Ser Lys Asp Tyr Gln
          85          90          95
Gln Val Leu Leu Asp Val Arg Arg Ser Leu Arg Arg Phe Pro Pro Gly
          100          105          110
Glu Lys Leu Ser Arg Ser Cys His Ile Trp Glu Glu Arg Ile Cys Phe
          115          120          125
Arg Ser Tyr His Val Thr
          130

```

```
<210> 779
<211> 322
<212> DNA
<213> Homo sapiens
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```
<400> 779
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60
gactgtgagt gattctgagg ataccgttgc gccgtcccag ctggttcgat cccctcgtaa
120
cgcccttgcc ttgaaggaac ccagtgggaa ggctagacca agtaaatatg aatcaccaaa
180
```

cgccagcaac ttcacgtca ggcattgtggc aactggcaaa gagggcactg atgatgagta
 240
 tgctaactca aactactact actcgatgtc tgccaatcga ctaggagacg aggaaacgga
 300
 ggaaatgata ggtttggcta cc
 322

<210> 780
 <211> 105
 <212> PRT
 <213> Homo sapiens

<400> 780
 Met Cys Lys Gln Phe Asn Asp Val Val Arg Arg His Gly Val His His
 1 5 10 15
 Ser Val Thr Val Ser Asp Ser Glu Asp Thr Val Ala Pro Ser Gln Leu
 20 25 30
 Val Arg Ser Pro Arg Asn Ala Leu Pro Leu Lys Glu Pro Ser Gly Lys
 35 40 45
 Ala Arg Pro Ser Lys Tyr Glu Ser Pro Asn Ala Ser Asn Phe Ile Val
 50 55 60
 Arg His Val Ala Thr Gly Lys Glu Gly Thr Asp Asp Glu Tyr Ala Asn
 65 70 75 80
 Ser Asn Tyr Tyr Tyr Ser Met Ser Ala Asn Arg Leu Gly Asp Glu Glu
 85 90 95
 Thr Glu Glu Met Ile Gly Leu Ala Thr
 100 105

<210> 781
 <211> 297
 <212> DNA
 <213> Homo sapiens

<400> 781
 nntcgcgtgc ctggaatgtg tgtctgtgta tgtgtgtgta tgtatgtgtg tatggaatgt
 60
 gtgtgtatgn gaatatgtgt gtgtatngga atgtgtgtgt gtgtttggaa tgtgtgtatg
 120
 gaatgtgtgt ctgtgtatgg aatatgtgtg agtatngaa tgtgtgtgtg tgtttggaat
 180
 gtatcgaatg tgtgtctgtg tgtaaggaat gtgtgtgtat ggaatgtgtt tacgtgcatg
 240
 tgtctggaat gtgtgtgtat ggaatgtgtg tgtatgtgta tngaatgtg tgtgtgt
 297

<210> 782
 <211> 99
 <212> PRT
 <213> Homo sapiens

<400> 782
 Xaa Arg Val Pro Gly Met Cys Val Cys Val Cys Val Cys Met Tyr Val
 1 5 10 15
 Cys Met Glu Cys Val Cys Met Xaa Ile Cys Val Cys Met Xaa Met Cys

```

                20                25                30
Val Cys Val Trp Asn Val Cys Met Glu Cys Val Ser Val Tyr Gly Ile
                35                40                45
Cys Val Ser Met Xaa Met Cys Val Cys Val Trp Asn Val Ser Asn Val
                50                55                60
Cys Leu Cys Val Arg Asn Val Cys Val Trp Asn Val Phe Thr Cys Met
65                70                75                80
Cys Leu Glu Cys Val Cys Met Glu Cys Val Cys Met Cys Met Xaa Met
                85                90                95
Cys Val Cys

```

<210> 783

<211> 612

<212> DNA

<213> Homo sapiens

<400> 783

```

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caccgggtcg agtgagctgc ccagcagcaa gcccaccaca tcggtgacca gaccgatcac
120
tttgttgagc acgtcgatga cgggcaactt caaggaaatc caggtgcgga cttgcgcggt
180
ccgcacaaaa atcggctggg tgtcgatcaa ctgcggggtg ccaatcgag aatttgcgcg
240
gttcgatgac acgtgtcttc accgtgatat tcagcagccc cagtacgtcc accggcaact
300
cgacggccac cgcgtgggt ttgttgga gctgcacaaa gccctgaatc aggttgaaca
360
gttgacaggt gacgtccagg gcgctcttgt ccgtgccgtt ttgtatattg atcaggtcgc
420
ccaggtgcag gatctgcgtg cctggggcaa tcagcttgat tgcttcgagg ttattgatca
480
ccacctggac cgcattaccg ccagcttga gcacatcgat ggcggcctgg atcaactggc
540
cgacggtcgc gtcggtcttg agcaactggc cgtagttgcc ggcgctgacg ttgaggcgga
600
tggccgacgc gt
612

```

<210> 784

<211> 190

<212> PRT

<213> Homo sapiens

<400> 784

```

Met Ser Ile Cys Val Pro Gly Thr Gly Ser Ser Glu Leu Pro Ser Ser
1                5                10                15
Lys Pro Thr Thr Ser Val Thr Arg Pro Ile Thr Leu Leu Ser Thr Ser
                20                25                30
Met Thr Gly Asn Phe Lys Glu Ile Gln Val Arg Thr Cys Ala Val Arg
35                40                45
Thr Lys Ile Gly Trp Val Ser Ile Asn Cys Gly Leu Pro Ile Ala Glu

```

| | | | | | |
|-----|-----|-----|-----|-----|-----|
| 50 | | 55 | | 60 | |
| Phe | Ala | Arg | Phe | Asp | Asp |
| 65 | | 70 | | 75 | |
| Gln | Tyr | Val | His | Arg | Gln |
| | | 85 | | 90 | |
| Gln | Leu | His | Lys | Ala | Leu |
| | | 100 | | 105 | |
| Gln | Gly | Ala | Leu | Val | Arg |
| | | 115 | | 120 | |
| Val | Gln | Asp | Leu | Arg | Ala |
| | | 130 | | 135 | |
| Ile | Asp | His | His | Leu | Asp |
| 145 | | 150 | | 155 | |
| Gly | Gly | Leu | Asp | Gln | Leu |
| | | 165 | | 170 | |
| Val | Val | Val | Ala | Gly | Ala |
| | | 180 | | 185 | |

<210> 785

<211> 408

<212> DNA

<213> Homo sapiens

<400> 785

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cttcaggccg cccacgctcg tggctctgtca gtactgctcg acggggtggt caaccacgtc
120
tcgcgtcgca accgcatcgt gcaggatgcg cagagtgtcg ggccagattc agacgccggc
180
cgtatggttc gctggtgtga ggggcgcctc gacgttttcg agggtcatag tgacctggtc
240
gcactcaacc acgacaaccc cgcagtgcgg gaacatgtca cccggatcat gaactattgg
300
tgcggtcgcg gtgttgacgg ctggcggctg gacgccgcta ttccgtcaat cctgagttct
360
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408

<210> 786

<211> 134

<212> PRT

<213> Homo sapiens

<400> 786

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Leu | Asp | Tyr | Phe | Thr | Ile | Asp | Pro | Arg | Leu | Gly | Asp | Asp | Asp | Asp |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Phe | Asp | His | Leu | Leu | Gln | Ala | Ala | His | Ala | Arg | Gly | Leu | Ser | Val | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Asp | Gly | Val | Val | Asn | His | Val | Ser | Arg | Arg | Asn | Arg | Ile | Val | Gln |
| | | 35 | | | | | 40 | | | | 45 | | | | |
| Asp | Ala | Gln | Ser | Ala | Gly | Pro | Asp | Ser | Asp | Ala | Gly | Arg | Met | Val | Arg |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Trp | Cys | Glu | Gly | Arg | Leu | Asp | Val | Phe | Glu | Gly | His | Ser | Asp | Leu | Val |

[illegible]

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<210> 787
<211> 310
<212> DNA
<213> Homo sapiens
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```
<400> 787
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gttggaaacca cagacgatgc cacgcttgtg tcagcagtgc gacactggcc cacgtggcgt
120
ccttgggtctc tcttcattgc tgccgtcact gtgtgctggg catgccctgc agttacccca
180
aagcttttatg tcacaacatt gaggctggcg gagaaagacc ggccccctca cccacctta
240
gacttcctgg aagggccgcc cgggtccaca acctggcccc ttaactccct gggcagctgc
300
tggggggagaa
310
```

```
<210> 788
<211> 90
<212> PRT
<213> Homo sapiens
```

```

<400> 788
Met Met Leu Val Ala Asp Thr Val Gly Thr Thr Asp Asp Ala Thr Leu
 1          5          10          15
Val Ser Ala Val Arg His Trp Pro Thr Trp Arg Pro Trp Ser Leu Leu
          20          25          30
Ile Ala Ala Val Thr Val Cys Trp Ala Cys Pro Ala Val Thr Pro Lys
          35          40          45
Leu Tyr Val Thr Thr Leu Arg Leu Ala Glu Lys Asp Arg Pro Leu His
          50          55          60
Pro Thr Leu Asp Phe Leu Glu Gly Pro Pro Gly Ser Thr Thr Trp Pro
65          70          75          80
Val Asn Ser Leu Gly Ser Cys Trp Gly Arg
          85          90

```

```
<210> 789
<211> 369
<212> DNA
<213> Homo sapiens
```

<400> 789

acgcgtgaag ttgcagcagc aagcaatctg cctcgcttct ggtgcccacc gaaaccaagg
 60
 tctgccagac agcagcgctg ggacctctcc cctccccagc aggatgggcc ggctctggaa
 120
 gcacgaggtg ttccaaagtg caaacaagct gctgttaaata aattattccc aaacgccaaa
 180
 gcccttgctg gtttgcttgc ttgctttttt ctttttttgc ctcgcacaga tatcgctagg
 240
 gcagagtatt gacatttcgt tttctttttg ttatgggtga taaagcacgg tgtttcttgt
 300
 gagtgtatgc ctgtatttcc ctgcagagct gattgccagt ccattttctt ctatcccatc
 360
 cccattttc
 369

<210> 790

<211> 114

<212> PRT

<213> Homo sapiens

<400> 790

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Asp | Trp | Gln | Ser | Ala | Leu | Gln | Gly | Asn | Thr | Gly | Ile | His | Ser | Gln |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Glu | Thr | Pro | Cys | Phe | Ile | Thr | His | Asn | Lys | Lys | Lys | Thr | Lys | Cys | Gln |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Tyr | Ser | Ala | Leu | Ala | Ile | Ser | Val | Arg | Gly | Lys | Lys | Arg | Lys | Lys | Gln |
| | | 35 | | | | 40 | | | | | | 45 | | | |
| Ala | Ser | Lys | Pro | Ala | Arg | Ala | Leu | Ala | Phe | Gly | Asn | Asn | Tyr | Leu | Thr |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Ala | Ala | Cys | Leu | His | Phe | Gly | Thr | Pro | Arg | Ala | Ser | Arg | Ala | Gly | Pro |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Ser | Cys | Trp | Gly | Gly | Glu | Arg | Ser | Gln | Arg | Cys | Cys | Leu | Ala | Asp | Leu |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Gly | Phe | Gly | Gly | His | Gln | Lys | Arg | Gly | Arg | Leu | Leu | Ala | Ala | Ala | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ser | Arg | | | | | | | | | | | | | | |

<210> 791

<211> 420

<212> DNA

<213> Homo sapiens

<400> 791

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 180
 ggagaagggg gagagtacat gtgtcatgct gtaaacaatca taggggaagc aaagagcttt
 240
 gcaaagttag acataatgcc ccaggaagaa agagtgggtg cactaccacc tccagtaaca
 300

catcagcatg tcattggagtt tgatttggaa cacaccacat catcaagaac accttctcct
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 420

<210> 792
 <211> 138
 <212> PRT
 <213> Homo sapiens

<400> 792
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 20 25 30
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 35 40 45
 Cys Ser Leu Glu Ile Ser Asn Ile Gln Lys Gly Glu Gly Gly Glu Tyr
 50 55 60
 Met Cys His Ala Val Asn Ile Ile Gly Glu Ala Lys Ser Phe Ala Asn
 65 70 75 80
 Val Asp Ile Met Pro Gln Glu Glu Arg Val Val Ala Leu Pro Pro Pro
 85 90 95
 Val Thr His Gln His Val Met Glu Phe Asp Leu Glu His Thr Thr Ser
 100 105 110
 Ser Arg Thr Pro Ser Pro Gln Glu Ile Val Leu Glu Val Glu Leu Ser
 115 120 125
 Glu Lys Asp Val Lys Glu Phe Glu Lys Gln
 130 135

<210> 793
 <211> 479
 <212> DNA
 <213> Homo sapiens

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 120
 aagccaaagt ctacaggtca ctggggcaga ggccgcccga aaccagcttc cctcccggc
 180
 ctaggcgcgc caggtccccg cccagccggg gcgatccttt ggtcggacag tgaggttggg
 240
 agcccaccgc acccaagtcc gccgcatcca cccggcgagc gcgacccccg acgggcagcc
 300
 gctcaccttc tcctggcccc ggcttcagga aaactgcctg gaggtggccg gggttcccta
 360
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<210> 794

<211> 159
 <212> PRT
 <213> Homo sapiens

<400> 794

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Ala | Cys | Arg | Phe | Ser | Glu | Ile | His | Tyr | Gly | Asn | Val | Arg | Val | Val |
| 1 | | | | 5 | | | | | 10 | | | | 15 | | |
| Glu | Met | Leu | Arg | Pro | Arg | Thr | Val | Leu | Arg | Glu | Pro | Lys | Arg | Ser | Phe |
| | | | 20 | | | | | 25 | | | | 30 | | | |
| Leu | Thr | Pro | Asp | Val | Pro | Glu | Pro | Lys | Pro | Lys | Ser | Thr | Gly | His | Trp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Arg | Gly | Arg | Pro | Lys | Pro | Ala | Ser | Pro | Pro | Gly | Leu | Gly | Ala | Pro |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gly | Pro | Arg | Pro | Ala | Gly | Ala | Ile | Leu | Trp | Ser | Asp | Ser | Glu | Val | Gly |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Ser | Pro | Pro | His | Pro | Ser | Pro | Pro | His | Pro | Pro | Gly | Ala | Gly | Asp | Pro |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Arg | Arg | Ala | Ala | Ala | His | Leu | Leu | Leu | Ala | Pro | Ala | Ser | Gly | Lys | Leu |
| | | 100 | | | | | 105 | | | | | 110 | | | |
| Pro | Gly | Gly | Gly | Arg | Gly | Ser | Leu | Ala | Glu | Ala | Gly | Arg | Arg | Ala | Ser |
| | | 115 | | | | 120 | | | | | 125 | | | | |
| Arg | Leu | Pro | Gln | Ser | Pro | His | Pro | Trp | Pro | Gly | Gly | Trp | Ser | Pro | Leu |
| | 130 | | | | 135 | | | | | 140 | | | | | |
| Arg | Ala | Glu | Ala | Ala | Ala | Gly | Pro | Ser | Gln | Val | Pro | Trp | Asn | Val | |
| 145 | | | | | 150 | | | | | 155 | | | | | |

<210> 795
 <211> 1418
 <212> DNA
 <213> Homo sapiens

<400> 795

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120
gtggcaggga tcctggagca ctgcgtgatg taccatcatg actgcgtcaa gaccgggatg
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cagagtctac agcctgaccc agctgcccgc tatcgcaatg tgttggaggc cctctggagg
240
attataagaa cggagggcct atggaggccc atgagggggc tgaacgtcac agcaacaggc
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420
acattacttc atgatgcagc catgaaccct gcggaaggct gatctgctga cttggggctc
480
tgaatctgga tactctccat caccggttgg ctgctgtcac catttccttc ctggttgatg
540
gcactactag tggtaagca gaggatgcag atgtacaact caccatacca cggggtgaca
600
gactgtgtac gggcagtggt gcaaaatgaa ggggccgggg ccttttaccg cagctacacc
660

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 720
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 780
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 840
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 900
 agtgccttca ggacggtata tcaagtaggt ggggtgaccg cctatttccg aggggtgcag
 960
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 1020
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 1080
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 1200
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 1380
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 1418

<210> 796

<211> 176

<212> PRT

<213> Homo sapiens

<400> 796

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ala | Leu | Leu | Val | Val | Lys | Gln | Arg | Met | Gln | Met | Tyr | Asn | Ser | Pro |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Tyr | His | Arg | Val | Thr | Asp | Cys | Val | Arg | Ala | Val | Trp | Gln | Asn | Glu | Gly |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Ala | Gly | Ala | Phe | Tyr | Arg | Ser | Tyr | Thr | Thr | Gln | Leu | Thr | Met | Asn | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Pro | Phe | Gln | Ala | Ile | His | Phe | Met | Thr | Tyr | Glu | Phe | Leu | Gln | Glu | His |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Phe | Asn | Pro | Gln | Arg | Arg | Tyr | Asn | Pro | Ser | Ser | His | Val | Leu | Ser | Gly |
| 65 | | | | 70 | | | | | | 75 | | | | 80 | |
| Ala | Cys | Ala | Gly | Ala | Val | Ala | Ala | Ala | Ala | Thr | Thr | Pro | Leu | Asp | Val |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Cys | Lys | Thr | Leu | Leu | Asn | Thr | Gln | Glu | Ser | Leu | Ala | Leu | Asn | Ser | His |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ile | Thr | Gly | His | Ile | Thr | Gly | Met | Ala | Ser | Ala | Phe | Arg | Thr | Val | Tyr |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Gln | Val | Gly | Gly | Val | Thr | Ala | Tyr | Phe | Arg | Gly | Val | Gln | Ala | Arg | Val |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Ile | Tyr | Gln | Ile | Pro | Ser | Thr | Ala | Ile | Ala | Trp | Ser | Val | Tyr | Glu | Phe |
| 145 | | | | 150 | | | | | | 155 | | | | 160 | |
| Phe | Lys | Tyr | Leu | Ile | Thr | Lys | Arg | Gln | Glu | Glu | Trp | Arg | Ala | Gly | Lys |

165

170

175

<210> 797

<211> 585

<212> DNA

<213> Homo sapiens

<400> 797

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 120
 gagatgctgc cggaagttaa gtcgtcttca gaaatctacg gccgcaccaa aagcggatc
 180
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 240
 gccgggcagg ccaagaacac ttatggcacc ggctgcttcc tgctgatgaa caccggcgac
 300
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 360
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 420
 gatgagctga agatcatcgc ggacgccacc gacaccgaat acttcgccgg caaggtcaag
 480
 gacagcaacg gcgtctacct ggtgccggcc ttaccggcc tgggcgctcc gtactgggac
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 585

<210> 798

<211> 195

<212> PRT

<213> Homo sapiens

<400> 798

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 20 25 30
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 35 40 45
 Ser Ser Glu Ile Tyr Gly Arg Thr Lys Ser Gly Ile Ala Ile Gly Gly
 50 55 60
 Ile Ala Gly Asp Gln Gln Ala Ala Leu Phe Gly Gln Met Cys Val Glu
 65 70 75 80
 Ala Gly Gln Ala Lys Asn Thr Tyr Gly Thr Gly Cys Phe Leu Leu Met
 85 90 95
 Asn Thr Gly Asp Lys Ala Val Lys Ser Lys His Gly Met Leu Thr Thr
 100 105 110
 Ile Ala Cys Gly Pro Arg Gly Glu Val Ala Tyr Ala Leu Glu Gly Ala
 115 120 125
 Val Phe Asn Gly Gly Ser Pro Val Gln Trp Leu Arg Asp Glu Leu Lys
 130 135 140
 Ile Ile Ala Asp Ala Thr Asp Thr Glu Tyr Phe Ala Gly Lys Val Lys

| | | | | | | |
|---|-----|-----|-----|-----|-----|-----|
| 145 | | 150 | | 155 | | 160 |
| Asp Ser Asn Gly Val Tyr Leu Val Pro Ala Phe Thr Gly Leu Gly Ala | | | | | | |
| | 165 | | 170 | | 175 | |
| Pro Tyr Trp Asp Pro Tyr Ala Arg Gly Ala Leu Phe Gly Leu Thr Arg | | | | | | |
| | 180 | | 185 | | 190 | |
| Gly Val Arg | | | | | | |
| 195 | | | | | | |

<210> 799

<211> 2152

<212> DNA

<213> Homo sapiens

<400> 799

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120
acgccgagag cccagaccag gattccaaac acactgcacg agaatattgt ggatccgctg
180
tcaggtaagt gtccgtcact gaccagacg ctgttacgtg gcacatgact gtacagtgcc
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360
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420
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480
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540
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1080
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1200

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 1320
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 1860
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 1920
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 1980
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 2040
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<210> 800

<211> 95

<212> PRT

<213> Homo sapiens

<400> 800

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Cys | Asn | Asp | Asn | Ile | Ala | Ser | Leu | Tyr | Asp | Arg | Ile | Ile | Trp | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asn | Arg | Thr | Thr | Asn | Thr | Tyr | Ile | Leu | Lys | Asn | Ala | Gly | Val | Gly | Gln |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Gln | Leu | Thr | Pro | Val | Ile | Pro | Ala | Leu | Trp | Glu | Ala | Glu | Ala | Gly |
| | | 35 | | | | | 40 | | | | 45 | | | | |
| Gly | Ser | Arg | Asn | Pro | Ser | Thr | Leu | Arg | Gly | Arg | Gly | Gly | Gln | Ile | Met |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Arg | Ser | Arg | Asp | Gln | Asp | His | Pro | Gly | Gln | Asn | Gly | Glu | Thr | Pro | Ser |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Leu | Leu | Lys | Ile | Gln | Lys | Leu | Ala | Glu | Leu | Ser | Gly | Thr | His | Leu | |
| | | | | 85 | | | | 90 | | | | | | 95 | |

<210> 801

<211> 424

<212> DNA

<213> Homo sapiens

<400> 801

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180
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atgn
424

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<210> 802

<211> 122

<212> PRT

<213> Homo sapiens

<400> 802

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Ile Gly Pro Asn Gly Cys Gly Lys Ser Thr Leu Leu Ser His Leu Tyr
35     40     45
Arg Leu His Ser Thr Lys Asn Lys Ile Thr Leu Asn Gly Lys Pro Leu
50     55     60
Glu Ser Tyr Lys Gly Arg Glu Phe Ala Gln Leu Val Ala Val Leu Thr
65     70     75     80
Gln Ser Arg Asp Ala Met Ile Asp Asp Phe Leu Val Lys Asp Ile Val
85     90     95
Leu Met Gly Arg Asp Pro Tyr Lys Gln His Phe Gly Thr Tyr Ser Ser
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Glu Asp Val Lys Ile Ala Glu His Tyr Met
115    120

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<210> 803

<211> 6863

<212> DNA

<213> Homo sapiens

<400> 803

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120

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aaggtgacca tcgatgggac aggcgtttcg tgcagagtct gcaaggtggc gacgcacaga
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660
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780
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960
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1140
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540

ctctgaaggc

550

<210> 806

<211> 118

<212> PRT

<213> Homo sapiens

<400> 806

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ala | Gly | Ile | Glu | Arg | Leu | Met | Ser | Lys | Phe | Arg | Leu | His | Lys | Glu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ser | Leu | Ser | Ile | His | Ser | Trp | Leu | Thr | Phe | Leu | Ala | Gln | Gly | Val | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Met | Ala | Leu | Phe | Pro | Ser | Ser | Gly | His | Gln | Phe | Arg | Ser | Arg | Gly | Pro |
| | | 35 | | | | | 40 | | | | | | 45 | | |
| Met | Leu | Gly | Arg | Ala | Thr | Pro | Met | Asp | Leu | Ala | Arg | Thr | Leu | Ser | His |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Arg | Phe | His | Thr | Gln | Arg | Glu | Asp | Ser | Pro | Thr | Gln | Thr | Leu | Lys | Arg |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Glu | His | Leu | Gly | Glu | Gly | Ser | Val | Glu | Thr | Arg | Thr | Gln | Lys | Asp | Thr |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Arg | Glu | Lys | Glu | Ala | Val | His | Trp | Gly | Gly | Phe | Arg | Gly | Thr | Cys | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Cys | His | Val | Ser | Glu | Gly | | | | | | | | | | |
| | | | | 115 | | | | | | | | | | | |

<210> 807

<211> 287

<212> DNA

<213> Homo sapiens

<400> 807

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120

ccgagtgggt cgaagctcag accgggacag gccgctatac cagcgcgagc gattatatct

180

gcgccctgat tcgccaggac caggagcgaa gcgacggcct caggcagctt caaacgttga

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287

<210> 808

<211> 93

<212> PRT

<213> Homo sapiens

<400> 808

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ala | Val | Ala | Leu | Pro | His | Trp | Gln | Asp | Ala | Lys | Phe | Leu | Ala | Met |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Ile | Ser | Arg | Gly | Gly | Arg | Ala | Arg | Gly | Met | Ala | Thr | Val | Asn | Val | Ser |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 20 | | 25 | | 30 | | | | | | | | | | |
| Leu | Ser | Asp | Ala | Met | Thr | Glu | Trp | Val | Glu | Ala | Gln | Thr | Gly | Thr | Gly |
| | 35 | | 40 | | 45 | | | | | | | | | | |
| Arg | Tyr | Thr | Ser | Ala | Ser | Asp | Tyr | Ile | Cys | Ala | Leu | Ile | Arg | Gln | Asp |
| | 50 | | 55 | | 60 | | | | | | | | | | |
| Gln | Glu | Arg | Ser | Asp | Gly | Leu | Arg | Gln | Leu | Gln | Thr | Leu | Ile | Thr | Glu |
| 65 | | | 70 | | 75 | | | | 80 | | | | | | |
| Gly | Phe | Asp | Ser | Gly | Ile | Ser | Ala | Ser | Ser | Leu | Asp | Asp | | | |
| | | | 85 | | 90 | | | | | | | | | | |

<210> 809

<211> 405

<212> DNA

<213> Homo sapiens

<400> 809

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120
gacgcgtggt cgcgtcaa at ggagagacga tcggtgccgc ccttgcccca cgatcctgat
180
ggccccgaga ttcttgacga tgtcaccacc ctgcccac ac aggtaatggg tctgccacgt
240
cacctgggta tccactcagc tggaatgggt ctgacgcgag aaccagtagg acgcatctgc
300
cccattgagc cggctcgaat gtttggtcgc acggggctgc agtgggacaa anaaaactgt
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405

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<210> 810

<211> 135

<212> PRT

<213> Homo sapiens

<400> 810

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Gly | Gly | Gly | Gly | Gly | Gly | Val | Phe | Phe | Pro | Pro | Lys | Lys | Lys | Lys |
| 1 | | | 5 | | | | | 10 | | | | 15 | | | |
| Gly | Gly | Gly | Gly | Gly | Pro | Pro | Pro | Pro | Pro | Pro | Leu | Phe | Phe | Pro | Arg |
| | | | 20 | | | | | 25 | | | | 30 | | | |
| Gly | Val | Tyr | Ser | Gln | Gly | Gln | Gln | Asp | Ala | Trp | Ser | Arg | Gln | Met | Glu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Arg | Arg | Ser | Val | Pro | Pro | Leu | Pro | His | Asp | Pro | Asp | Gly | Pro | Glu | Ile |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Pro | Asp | Asp | Val | Thr | Thr | Leu | Ala | Gln | Gln | Val | Met | Gly | Leu | Pro | Arg |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| His | Leu | Gly | Ile | His | Ser | Ala | Gly | Met | Val | Leu | Thr | Arg | Glu | Pro | Val |
| | | | | 85 | | | | 90 | | | | | 95 | | |
| Gly | Arg | Ile | Cys | Pro | Ile | Glu | Pro | Ala | Arg | Met | Phe | Gly | Arg | Thr | Gly |
| | | | 100 | | | | | 105 | | | | 110 | | | |
| Leu | Gln | Trp | Asp | Lys | Xaa | Asn | Cys | Ala | Trp | Met | Gly | Leu | Gly | Lys | Phe |
| | | 115 | | | | 120 | | | | | | 125 | | | |
| Asp | Leu | Leu | Gly | Leu | Gly | Met | | | | | | | | | |

130

135

<210> 811

<211> 642

<212> DNA

<213> Homo sapiens

<400> 811

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 cagtgccaat gactgccaat ggcaaagaag agctccaacc aaacaccagg tgcttcatgg
 120
 tgggtgacaca ttaacaacac cggggaagca gtactgccaa cacctagata tgagaaaaag
 180
 aaaacaggca cttaaagcga ggctaaccga ctttcaggaa tgataaaggg cagaggaccc
 240
 tgtcacctct acccctgcta cttaaaggcgt ggcccacaga gcagcagcac cagcagcaca
 300
 taaaatgggg ttaaatatga caggaaaaac aaggtgacag ggaaatgggg tgaagatcaa
 360
 gttcgtggta ngctcttctt tcctagagga tttgggcctg agctcttggg gaaagctctc
 420
 caacacctca ggggtgtgctt gttccctctg cctgtgggga tgctcttctt acgggtggct
 480
 gactggctcc cactttcctc cgtattgttg tcttgtctct tccctcacia ccatcaaggc
 540
 tctttccctt aattctataa gacagtacct ctggcttaga aattatatgc cctcctttaa
 600
 aaaaacgaaa tgctagagga catagaactt gaggaataat tt
 642

<210> 812

<211> 106

<212> PRT

<213> Homo sapiens

<400> 812

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Val | Val | Arg | Glu | Glu | Thr | Arg | Gln | Gln | Tyr | Gly | Gly | Lys | Trp | Glu |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Pro | Val | Ser | His | Pro | Tyr | Lys | Glu | His | Pro | His | Arg | Ala | Gly | Glu | Gln |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | His | Pro | Glu | Val | Leu | Glu | Ser | Phe | Leu | Gln | Glu | Leu | Arg | Pro | Lys |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Ala | Ser | Arg | Lys | Glu | Arg | Xaa | Thr | Thr | Asn | Leu | Ile | Phe | Thr | Pro | Phe |
| | | | 50 | | | | 55 | | | | 60 | | | | |
| Pro | Cys | His | Leu | Val | Phe | Pro | Val | Ile | Phe | Asn | Pro | Ile | Leu | Cys | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ala | Gly | Ala | Ala | Ala | Leu | Trp | Ala | Thr | Pro | Leu | Val | Ala | Gly | Val | Glu |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Val | Thr | Gly | Ser | Ser | Ala | Leu | Tyr | His | Ser | | | | | | |
| | | | 100 | | | | | 105 | | | | | | | |

<210> 813

<211> 558

<212> DNA

<213> Homo sapiens

<400> 813

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120
gttcgctgac cagcaccggg ccgcccggct gggccgggaa accgtggaac aagggaaagcg
180
ggggcgggcg gcggggtgac gccttcggcc ccttcgcctt cggtcagcgt gcggcgcaat
240
tcgggggtcga ggatgatccg cggcccttcg atcttgacca cgatctccag ttgcccgccca
300
ttgtcttcgc cgccgacatc cagcgtgccg ccgcgcacca gcgcctcgct ggcgatcagg
360
gcgaggttca gcatcacctt cagcgcggac ttgggcagcg tctccgtttc caccaccag
420
ttgaattgcg tgcgcttatt gtcggcaacc agcccctcgt tcgcggtttt cgcttcgcgc
480
gcgtcgacct gttcgccgaa ccgcccggcg gcgcagaagg cgaggcgga gaatttgagc
540
ttgttggcgg atacgcgt
558

```

<210> 814

<211> 151

<212> PRT

<213> Homo sapiens

<400> 814

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Met Thr Phe Ser Ala Gly Ser Leu Thr Ser Thr Gly Pro Pro Gly Trp
1           5           10           15
Ala Gly Lys Pro Trp Asn Lys Gly Ser Gly Gly Gly Ala Arg Gly Asp
20           25           30
Ala Phe Gly Pro Leu Ala Phe Gly Gln Arg Ala Ala Gln Phe Gly Val
35           40           45
Glu Asp Asp Pro Arg Pro Phe Asp Leu Asp His Asp Leu Gln Leu Pro
50           55           60
Ala Ile Val Phe Ala Ala Asp Ile Gln Arg Ala Ala Ala His Gln Arg
65           70           75           80
Leu Ala Gly Asp Gln Gly Glu Val Gln His His Leu Gln Arg Gly Leu
85           90           95
Gly Gln Arg Leu Arg Phe His Pro Pro Val Glu Leu Arg Ala Leu Ile
100          105          110
Val Gly Asn Gln Pro Leu Val Arg Gly Phe Arg Phe Ala Arg Val Asp
115          120          125
Leu Phe Ala Glu Pro Ala Gly Gly Ala Glu Gly Glu Ala Glu Glu Phe
130          135          140
Glu Leu Val Gly Gly Tyr Ala
145          150

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<210> 815

<211> 315

<212> DNA

<213> Homo sapiens

<400> 815

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120
agctagcgca ggagaaagcc gagacctcac gtccgaagcg gattcagcaa gtgcacaacc
180
ttctaccacac gctgaggttt ccagtgaagt tactgctacg tccagtatag atgagcaggt
240
agacctcatt gctgcaccgt taagcgaaga gtccaatgtc agcaagctcg ggccgtcccc
300
tgaggccgat acatc
315

<210> 816

<211> 90

<212> PRT

<213> Homo sapiens

<400> 816

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Pro | Ser | Asp | Leu | Pro | Lys | Val | Asp | Asp | Glu | Lys | Ala | His | Asp | Ala |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Pro | His | Thr | Asp | Gly | Ser | Glu | Pro | Gly | Gln | Ala | Ser | Ala | Gly | Glu | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Asp | Leu | Thr | Ser | Glu | Ala | Asp | Ser | Ala | Ser | Ala | Gln | Pro | Ser | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| His | Ala | Glu | Val | Ser | Ser | Glu | Val | Thr | Ala | Thr | Ser | Ser | Ile | Asp | Glu |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Gln | Val | Asp | Leu | Ile | Ala | Ala | Pro | Leu | Ser | Glu | Glu | Ser | Asn | Val | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Lys | Leu | Gly | Pro | Ser | Pro | Glu | Ala | Asp | Thr | | | | | | |
| | | | | 85 | | | | | 90 | | | | | | |

<210> 817

<211> 321

<212> DNA

<213> Homo sapiens

<400> 817

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120
aatacacttt tctcaaagct tcaaattaat caatccatta tattctgcaa ctctgttaat
180
agtgttgagc tgctggctaa aaaaataact gaactcgggt attcatgctt ctacattcat
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gctaagatgt tgcaagacca cagaaatcga gtattccatg attgtcgtaa tgggtgcttg
300
agaaaccttg tgtgcacaga t
321

<210> 818
 <211> 107
 <212> PRT
 <213> Homo sapiens

<400> 818
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 20 25 30
 Glu Gly Gln Lys Val His Cys Leu Asn Thr Leu Phe Ser Lys Leu Gln
 35 40 45
 Ile Asn Gln Ser Ile Ile Phe Cys Asn Ser Val Asn Ser Val Glu Leu
 50 55 60
 Leu Ala Lys Lys Ile Thr Glu Leu Gly Tyr Ser Cys Phe Tyr Ile His
 65 70 75 80
 Ala Lys Met Leu Gln Asp His Arg Asn Arg Val Phe His Asp Cys Arg
 85 90 95
 Asn Gly Ala Cys Arg Asn Leu Val Cys Thr Asp
 100 105

<210> 819
 <211> 3422
 <212> DNA
 <213> Homo sapiens

<400> 819
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 120
 gcagggggccc atggactctc caaaggcccc ctggagaagc ggccctatct tggccccggt
 180
 ctgcccctga ctccccgaga cagggccagt ggacacaaag gggccagtga ggacaactct
 240
 ggtggaggag gcaagaagcc aaagatggag gagctgggcc tggcctccca cccccggag
 300
 ggagggccct gccagcccca gacaaggcca cagaaacagc caggccacac caactacagc
 360
 agctattcca agcggaagcg cctcactcgg ggccgggcca agaacaccac ctcttcaccc
 420
 tgtaaggggc gtgccaagcg acgacgacag cagcaggtgc tgcccctgga tcccgagag
 480
 cctgaaatcc gcctcaagta catttctct tgcaagcggc tgaggtcaga cagccggacc
 540
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 780

gggcctgtgg tttccaaggc cctgagtacc tcttgccctg tttgctgcct ctgccaaaac
 840
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 aagcccccca ggcctgacgg ccagctgac ccggccaagc agggccact gcgcaccagt
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 1380
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 1440
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 1860
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 1920
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 1980
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 2340
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 2580
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 2700
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 2760
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 2820
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 2880
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 3180
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 3240
 aacaggtcct ggaagtcagt ccatcctccc gtgccacca gggaccttgt gtccggaggg
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 3420
 ca
 3422

<210> 820

<211> 494

<212> PRT

<213> Homo sapiens

<400> 820

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Asn | Ser | Lys | Lys | Leu | Ser | Ser | Thr | Asp | Cys | Phe | Lys | Thr | Glu | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Phe | Thr | Ser | Pro | Glu | Ala | Leu | Gln | Pro | Gly | Gly | Thr | Ala | Leu | Ala | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Lys | Lys | Arg | Ser | Arg | Lys | Gly | Arg | Ala | Gly | Ala | His | Gly | Leu | Ser | Lys |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Gly | Pro | Leu | Glu | Lys | Arg | Pro | Tyr | Leu | Gly | Pro | Ala | Leu | Pro | Leu | Thr |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Pro | Arg | Asp | Arg | Ala | Ser | Gly | Thr | Gln | Gly | Ala | Ser | Glu | Asp | Asn | Ser |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Gly | Gly | Gly | Gly | Lys | Lys | Pro | Lys | Met | Glu | Glu | Leu | Gly | Leu | Ala | Ser |

[illegible]

<210> 821

<211> 420

<212> DNA

<213> Homo sapiens

<400> 821

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 120
 cgtttgccgc aaaatgtggt gctaggttcg gaaacgacct cgacggtgag cagccgtggt
 180
 gtctacaagt ttcctgttgt gctgaagtcc gatgccatct atcccgacca tcagtcgtca
 240
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 300
 gaagactatc cctggacgat ggggcagttt gtctggacgg gcttcgacta cctcggtgaa
 360
 ccttcgcctt acgacacgga tgcctggccc tctcacgcct ccctcttcgg cattgtcgac
 420

<210> 822

<211> 133

<212> PRT

<213> Homo sapiens

<400> 822

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Asp | Gln | Val | Ser | Cys | Val | Leu | Asp | Asn | Gly | Phe | Ala | Ala | Ile | Met |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asp | Val | Pro | Gly | Phe | Asn | Tyr | Arg | Ala | His | Arg | Tyr | Thr | Glu | Ala | Tyr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Arg | Leu | Pro | Gln | Asn | Val | Val | Leu | Gly | Ser | Glu | Thr | Thr | Ser | Thr |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Val | Ser | Ser | Arg | Gly | Val | Tyr | Lys | Phe | Pro | Val | Val | Leu | Lys | Ser | Asp |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Ala | Ile | Tyr | Pro | Asp | His | Gln | Ser | Ser | Gly | Tyr | Asp | Thr | Glu | Tyr | Cys |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Ser | Trp | Ser | Asn | Thr | Pro | Asp | Val | Asp | Phe | Ala | Leu | Ala | Glu | Asp | Tyr |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Pro | Trp | Thr | Met | Gly | Gln | Phe | Val | Trp | Thr | Gly | Phe | Asp | Tyr | Leu | Gly |
| | | | 100 | | | | 105 | | | | | | 110 | | |
| Glu | Pro | Ser | Pro | Tyr | Asp | Thr | Asp | Ala | Trp | Pro | Ser | His | Ala | Ser | Leu |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Phe | Gly | Ile | Val | Asp | | | | | | | | | | | |
| | | | 130 | | | | | | | | | | | | |

<210> 823

<211> 550

<212> DNA

<213> Homo sapiens

<400> 823

tctagattct tgggcagccg agccccctctt gaattcctca gcttaccatc atgatcaaca
 60
 cctcccatgt tccgtccatg aatgaccgca ctgacagcac tggagagatt taatgggtca
 120

ccaattgagg cagtgaaggc actcatggca ctcagagctg gaatggggct gatctgagtt
 180
 gtactgttga ctgcagtggg gatgacaacc tgcattcctt tgctggctgc atcgacaact
 240
 gctttgtaaa tggcatctac ggaagcatca cctggggccac ccacaacgag gccatccttc
 300
 acctgttgac caagagatgg gtcaatcctc gggtgcaact cacaagggtg atcttgaaaa
 360
 ggtggaagtg tagtgtttgg attctcagga agtgctgtga gcccaggctg agtgcttatt
 420
 cttttgttta ggagagctgc atcttcctgc attctcacct gaaagttctg aaacagacaa
 480
 gccatggggg tattgttagc tgggcaagga attgtggact gtccttgga cgcctggaga
 540
 ttctggtacc
 550

<210> 824

<211> 161

<212> PRT

<213> Homo sapiens

<400> 824

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ala | Cys | Leu | Phe | Gln | Asn | Phe | Gln | Val | Arg | Met | Gln | Glu | Asp | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Leu | Leu | Asn | Lys | Arg | Ile | Ser | Thr | Gln | Pro | Gly | Leu | Thr | Ala | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Pro | Glu | Asn | Pro | Asn | Thr | Thr | Leu | Pro | Pro | Phe | Gln | Asp | Thr | Pro | Cys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Glu | Leu | Gln | Pro | Arg | Ile | Asp | Pro | Ser | Leu | Gly | Gln | Gln | Val | Lys | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gly | Leu | Val | Val | Gly | Gly | Pro | Gly | Asp | Ala | Ser | Val | Asp | Ala | Ile | Tyr |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Lys | Ala | Val | Val | Asp | Ala | Ala | Ser | Lys | Gly | Met | Gln | Val | Val | Ile | Thr |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Thr | Ala | Val | Asn | Ser | Thr | Thr | Gln | Ile | Ser | Pro | Ile | Pro | Ala | Leu | Ser |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Met | Ser | Ala | Phe | Thr | Ala | Ser | Ile | Gly | Asp | Pro | Leu | Asn | Leu | Ser |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ser | Ala | Val | Ser | Ala | Val | Ile | His | Gly | Arg | Asn | Met | Gly | Gly | Val | Asp |
| | 130 | | | | | 135 | | | | 140 | | | | | |
| His | Asp | Gly | Arg | Leu | Arg | Asn | Ser | Arg | Gly | Ala | Arg | Leu | Pro | Lys | Asn |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | |
| Leu | | | | | | | | | | | | | | | |

<210> 825

<211> 327

<212> DNA

<213> Homo sapiens

<400> 825

gcgtttgcga ccggccgtaa cccgcagaat gcggcggtgt gttgcactga gggatatttg
 60

cagttgctgg atgagcgcca gatgcgcggc gtgctcggcc acgagctgat gcacgtgtac
 120
 aaccgcgata tcctcacctc ttcgggtggcg gcgggtatcg cctccatcat cggtacgatt
 180
 gcgcagattc tttcgtttgg cgcgatgttc ggtggatcca accgcgatgg tgaacgttcc
 240
 aacccccctcg ccatgttcgt ggttgctatg ctggctccca ttgctactca ggcatccag
 300
 atggctatta gccgcacccg tgaattc
 327

<210> 826

<211> 109

<212> PRT

<213> Homo sapiens

<400> 826

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Phe | Ala | Thr | Gly | Arg | Asn | Pro | Gln | Asn | Ala | Ala | Val | Cys | Cys | Thr |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Glu | Gly | Ile | Leu | Gln | Leu | Leu | Asp | Glu | Arg | Glu | Met | Arg | Gly | Val | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | His | Glu | Leu | Met | His | Val | Tyr | Asn | Arg | Asp | Ile | Leu | Thr | Ser | Ser |
| | | | 35 | | | | 40 | | | | | | 45 | | |
| Val | Ala | Ala | Gly | Ile | Ala | Ser | Ile | Ile | Gly | Thr | Ile | Ala | Gln | Ile | Leu |
| | | | 50 | | | | 55 | | | | | | 60 | | |
| Ser | Phe | Gly | Ala | Met | Phe | Gly | Gly | Ser | Asn | Arg | Asp | Gly | Glu | Arg | Ser |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Asn | Pro | Leu | Ala | Met | Phe | Val | Val | Ala | Met | Leu | Ala | Pro | Ile | Ala | Thr |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Gln | Val | Ile | Gln | Met | Ala | Ile | Ser | Arg | Thr | Arg | Glu | Phe | | | |
| | | | 100 | | | | | 105 | | | | | | | |

<210> 827

<211> 534

<212> DNA

<213> Homo sapiens

<400> 827

nacgcgtacg tcaatatgca tcgtccagtc gttatcgcaa cgccgaaatc gatgctgcgc
 60
 aacaagatgg cgacctcgga tcccgaagag ttcaccaccg gtaggtggcg tcctgttcta
 120
 cccgacccat cgatcaccga cccgacggcc gttacgagga ttatcttgtg ctctggcaag
 180
 gcgcggtggg agctgggtcaa gcaacgtaag gccgccagtc ttgacggaca gctcgccatc
 240
 atccccgatgg agcgtctcta cccgctacca gtcgacgagt tggctgaggt ttttgcgcct
 300
 tacaccaacg tcacggatgt ccgctgggtc caagaagagc cagagaacca gggcgccctgg
 360
 tactacatgc tgaccacact gccccaggcc atgtcggaga agctgccagg attctttgat
 420
 gggttagtcg gcatcaccgc cccaccgtcc tcagctccgt cggtggggaca gcacagcgtc
 480

cacatccgtg aagagcagga gttactcgag aaggctatag cctgagcgac ctga
534

<210> 828
<211> 174
<212> PRT
<213> Homo sapiens

<400> 828
Xaa Ala Tyr Val Asn Met His Arg Pro Val Val Ile Ala Thr Pro Lys
1 5 10 15
Ser Met Leu Arg Asn Lys Met Ala Thr Ser Asp Pro Glu Glu Phe Thr
20 25 30
Thr Gly Arg Trp Arg Pro Val Leu Pro Asp Pro Ser Ile Thr Asp Pro
35 40 45
Thr Ala Val Thr Arg Ile Ile Leu Cys Ser Gly Lys Ala Arg Trp Glu
50 55 60
Leu Val Lys Gln Arg Lys Ala Ala Ser Leu Asp Gly Gln Leu Ala Ile
65 70 75 80
Ile Pro Met Glu Arg Leu Tyr Pro Leu Pro Val Asp Glu Leu Ala Glu
85 90 95
Val Phe Ala Pro Tyr Thr Asn Val Thr Asp Val Arg Trp Val Gln Glu
100 105 110
Glu Pro Glu Asn Gln Gly Ala Trp Tyr Tyr Met Leu Thr His Leu Pro
115 120 125
Gln Ala Met Ser Glu Lys Leu Pro Gly Phe Phe Asp Gly Leu Val Gly
130 135 140
Ile Thr Arg Pro Pro Ser Ser Ala Pro Ser Val Gly Gln His Ser Val
145 150 155 160
His Ile Arg Glu Glu Gln Glu Leu Leu Glu Lys Ala Ile Ala
165 170

<210> 829
<211> 492
<212> DNA
<213> Homo sapiens

<400> 829
nagtggccgg gtggccggcg ggtgccagcc gccatggagg ccgtgccccg catgccccatg
60
atctggctgg acctgaagga ggccggtgac tttcacttcc agccagctgt gaagaagttt
120
gtcctgaaga attatggaga gaaccagaa gcctacaatg aagaactgaa gaagctggag
180
ttgctcagac agaatgctgt ccgtgtccca cgagactttg agggctgtag tgtcctccgc
240
aagtacctcg gccagcttca ttacctgcag agtcgggtcc ccatgggctc gggccaggag
300
gccgtgtgcc ctgtcacatg gacagagatc ttctcaggca agtctgtggc ccatgaggac
360
atcaagtacg agcaggcctg tattttctcc aacnttggag cgctgcactc catgctgggg
420
gccatggaca agcgggtgtc tgaggagggc atgaaggtct cctgtaccca tttccagtgc
480

gcagccggcg cc
492

<210> 830
<211> 164
<212> PRT
<213> Homo sapiens

<400> 830
Xaa Trp Pro Gly Gly Arg Arg Val Pro Ala Ala Met Glu Ala Val Pro
1 5 10 15
Arg Met Pro Met Ile Trp Leu Asp Leu Lys Glu Ala Gly Asp Phe His
20 25 30
Phe Gln Pro Ala Val Lys Lys Phe Val Leu Lys Asn Tyr Gly Glu Asn
35 40 45
Pro Glu Ala Tyr Asn Glu Glu Leu Lys Lys Leu Glu Leu Leu Arg Gln
50 55 60
Asn Ala Val Arg Val Pro Arg Asp Phe Glu Gly Cys Ser Val Leu Arg
65 70 75 80
Lys Tyr Leu Gly Gln Leu His Tyr Leu Gln Ser Arg Val Pro Met Gly
85 90 95
Ser Gly Gln Glu Ala Ala Val Pro Val Thr Trp Thr Glu Ile Phe Ser
100 105 110
Gly Lys Ser Val Ala His Glu Asp Ile Lys Tyr Glu Gln Ala Cys Ile
115 120 125
Phe Ser Asn Xaa Gly Ala Leu His Ser Met Leu Gly Ala Met Asp Lys
130 135 140
Arg Val Ser Glu Glu Gly Met Lys Val Ser Cys Thr His Phe Gln Cys
145 150 155 160
Ala Ala Gly Ala

<210> 831
<211> 303
<212> DNA
<213> Homo sapiens

<400> 831
gcgttgctgc ggcgtggcga gaccatgacg gcggagaatc agcgtgccaa tgtgcgcac
60
gccgcaaacc acatcaagga ggttgcggtc gatcacgagg tcgttgtagc ccatggtaat
120
ggccccagg taggtctgtt ggctctgcaa tcgacagcct acgaggaagt cggtatctat
180
ccgctggatg tcctgggcgc agagtcacag gccatgatcg gctacatgat cgagcaggaa
240
ctcggcaatg tgatgcctca ggatcagcag atcgtcacca tgatcacgat gacagtcgctc
300
gac
303

<210> 832
<211> 101
<212> PRT

<213> Homo sapiens

<400> 832

Ala Leu Leu Arg Arg Gly Glu Thr Met Thr Ala Glu Asn Gln Arg Ala
 1 5 10 15
 Asn Val Arg Ile Ala Ala Asn His Ile Lys Glu Val Ala Val Asp His
 20 25 30
 Glu Val Val Val Ala His Gly Asn Gly Pro Gln Val Gly Leu Leu Ala
 35 40 45
 Leu Gln Ser Thr Ala Tyr Glu Glu Val Gly Ile Tyr Pro Leu Asp Val
 50 55 60
 Leu Gly Ala Glu Ser Gln Ala Met Ile Gly Tyr Met Ile Glu Gln Glu
 65 70 75 80
 Leu Gly Asn Val Met Pro Gln Asp Gln Gln Ile Val Thr Met Ile Thr
 85 90 95
 Met Thr Val Val Asp
 100

<210> 833

<211> 466

<212> DNA

<213> Homo sapiens

<400> 833

nngatccgcg cgatcgacga ggcgggtgcg tgatgttgac agcgaaaatg cgcagccggc
 60
 catttgacga gggctgaaaa cgtcttctac cggctctgctg tgccgcctgg tgtcagcaaa
 120
 cgacgccatg atcgctccagt gggatatgat ttgttctgcg gcgctggggg attcagttgc
 180
 ggattccacc aggccgggtg gcatgttgcg gcggcggttg agcacgacgt gtcggcgctct
 240
 ctgacctatg tcatgaatct cgctcgcccc ggcgtcaaga ttcacatcga ccccgagcac
 300
 ccggagctgg gcccaagacc accgcgaacc aagaagaaga gcggcgggcg agtgccgttc
 360
 gatgcgcatg tcggaactgg gtggatcgcc agcgagcccg ccgacgatcc cggctgcgaa
 420
 cacttctacg tgtacgacgt caagaacctc agcggcgagc ggatcc
 466

<210> 834

<211> 142

<212> PRT

<213> Homo sapiens

<400> 834

Gln Arg Lys Cys Ala Ala Gly His Leu Thr Arg Ala Glu Asn Val Phe
 1 5 10 15
 Tyr Arg Ser Ala Val Pro Pro Gly Val Ser Lys Arg Arg His Asp Arg
 20 25 30
 Pro Val Gly Ile Asp Leu Phe Cys Gly Ala Gly Gly Phe Ser Cys Gly
 35 40 45
 Phe His Gln Ala Gly Trp His Val Ala Ala Ala Val Glu His Asp Val

```

      50              55              60
Ser Ala Ser Leu Thr Tyr Val Met Asn Leu Ala Arg Pro Gly Val Lys
65              70              75              80
Ile His Ile Asp Pro Glu His Pro Glu Leu Gly Pro Arg Pro Pro Arg
      85              90              95
Thr Lys Lys Lys Ser Gly Gly Ala Val Pro Phe Asp Ala His Val Gly
      100              105              110
Thr Gly Trp Ile Ala Ser Glu Pro Ala Asp Asp Pro Gly Cys Glu His
      115              120              125
Phe Tyr Val Tyr Asp Val Lys Asn Leu Ser Gly Glu Arg Ile
      130              135              140

```

<210> 835

<211> 482

<212> DNA

<213> Homo sapiens

<400> 835

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acgcgtgaag ggattttgat caccagaac aaccacctgt ctttttagat caagaagcag
60
aagctcagag caaagaacat cacaccacgt ccctcagtga ttgaagcagt gattgagtca
120
cagaataaat ctggaactca ggtcttctga tctttgctcc agatggttaga gacaaaacta
180
aaagtaaaat accaagtga atcaaagcat cacgattgag cccagaacat gaaaaagaac
240
ttcctggccc acttgagaaa ctgttaaacc ggacatacct ttgggggactt cttcccttct
300
ctggaataag attgatgttt ccatgctgtg aaagacgatg atgttccttc tcccagattc
360
ctgctgtctt caaaaggcct agcaaaaacc actgctgctg ggtgcagttg agaaagggaa
420
tgaagaacaa tcccatggcc atgcaggcac tcctcccttc cacctctctg cccttcacgc
480
gt
482

```

<210> 836

<211> 120

<212> PRT

<213> Homo sapiens

<400> 836

```

Met Ala Met Gly Leu Phe Phe Ile Pro Phe Leu Asn Cys Thr Gln Gln
1              5              10              15
Gln Trp Phe Leu Leu Gly Leu Leu Lys Thr Ala Gly Ile Trp Glu Lys
      20              25              30
Glu His His Arg Leu Ser Gln His Gly Asn Ile Asn Leu Ile Pro Glu
      35              40              45
Lys Gly Arg Ser Pro Gln Arg Tyr Val Arg Phe Asn Ser Phe Ser Ser
      50              55              60
Gly Pro Gly Ser Ser Phe Ser Cys Ser Gly Leu Asn Arg Asp Ala Leu
65              70              75              80
Ile Ser Leu Gly Ile Leu Leu Leu Val Leu Ser Leu Thr Ser Gly Ala

```

Lys Ile Arg Arg Pro Glu Phe Gln Ile Tyr Ser Val Thr Gln Ser Leu
100 105 110

Leu Gln Ser Leu Arg Asp Val Val
115 120

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<210> 837
<211> 509
<212> DNA
<213> Homo sapiens
```

```
<400> 837
acgcgtggac ccccgttctg cccgcctttg cagtcacgc cctccctgaa gtcaccgctg
60
cagaaatacg caggcactga cctgggggta cagccaggca agggagagac gaggggctca
120
ctctgcacca gccaaaggcct gtgtcctggc atggctcccc caggaagcga ggatggcggt
180
gcctggcggt cgagccctc ttatcctggg gaatgctggg gggcgttcct gagcagacct
240
gcctgctgcc cctgctggct ggcaactgcc ctccccggg gaaaggttgg gtggtcccc
300
caggggaact caaagcaggg gagcccttg aggccccaag tccctggaat atcttggcg
360
tcagatggcc ccctcgaac accctcacac gggggggccg cgcggtggga ggtgaccag
420
cagccactct tacttggcga agacttttct cccaatgcga gcgcgggtgg tatcagcctg
480
agccttcagg ttggtgaggc tgggggtacc
509
```

```
<210> 838
<211> 119
<212> PRT
<213> Homo sapiens
```

```

<400> 838
Met Ala Pro Pro Gly Ser Glu Asp Gly Gly Ala Trp Arg Ser Ser Pro
  1          5          10          15
Ser Tyr Pro Gly Glu Cys Trp Gly Ala Phe Leu Ser Arg Pro Ala Cys
          20          25          30
Cys Pro Cys Trp Leu Ala Leu Pro Leu Pro Arg Gly Lys Val Gly Trp
          35          40          45
Ser Pro Gln Gly Asn Ser Lys Gln Gly Ser Pro Trp Arg Pro Gln Val
          50          55          60
Pro Gly Ile Ser Trp Arg Ser Asp Gly Pro Pro Arg Thr Pro Ser His
65          70          75          80
Gly Gly Ala Ala Arg Trp Glu Val Thr Gln Gln Pro Leu Leu Leu Gly
          85          90          95
Glu Asp Phe Ser Pro Asn Ala Ser Ala Gly Gly Ile Ser Leu Ser Leu
          100          105          110
Gln Val Gly Glu Ala Gly Val
          115

```

<210> 839
 <211> 347
 <212> DNA
 <213> Homo sapiens

<400> 839
 acgcgtctcg tgttcgtgcg gcacggcagg acggcggttca atgtggaggg tcggctccag
 60
 ggccgtctcg acatgccgtt ggatgagggtg gggcgccgtc aggcactcac agtgggtcaa
 120
 gtcacgcccg agatggaacc tgacgcgac atggcctctc cgctacaacg tgcgcgcgac
 180
 acagctcagg caatcgggtg ttgtgctgga ttgggcgtac agctggatga tcgactcatc
 240
 gagatcgatg tcggacgttg gtcgggacaa cgggctgcgg acctgcgtcg caacgatcct
 300
 gactacgcag caagtgtggt cagccctatc gattaccggg tcggagn
 347

<210> 840
 <211> 115
 <212> PRT
 <213> Homo sapiens

<400> 840
 Thr Arg Leu Val Phe Val Arg His Gly Arg Thr Ala Phe Asn Val Glu
 1 5 10 15
 Gly Arg Leu Gln Gly Arg Leu Asp Met Pro Leu Asp Glu Val Gly Arg
 20 25 30
 Arg Gln Ala Leu Thr Val Ala Gln Val Ile Ala Glu Met Glu Pro Asp
 35 40 45
 Ala Ile Met Ala Ser Pro Leu Gln Arg Ala Arg Asp Thr Ala Gln Ala
 50 55 60
 Ile Gly Ala Cys Ala Gly Leu Gly Val Gln Leu Asp Asp Arg Leu Ile
 65 70 75 80
 Glu Ile Asp Val Gly Arg Trp Ser Gly Gln Arg Ala Ala Asp Leu Arg
 85 90 95
 Arg Asn Asp Pro Glu Tyr Ala Ala Ser Val Val Ser Pro Ile Asp Tyr
 100 105 110
 Arg Val Gly
 115

<210> 841
 <211> 351
 <212> DNA
 <213> Homo sapiens

<400> 841
 tccggaactc accccgacgc cgtcattatg gacgtcatga tgccgcgtct agatggcttg
 60
 gaagccaccc ggatgctgcg cagcaatggc aacgacgtcc cgatcctcgt cctcaccgcc
 120
 cgcgatgctg tcgacgatcg cgttgacggc ctcgacgctg gcgccgatga ctacatggtc
 180

aagcccttcg ccctcgacga actcctcgct cgcctacgcg ccctcactcg tcgttcccgt
 240
 cccgagccag agcaaaacga ggccccctgaa caactctcct tcgctgacct cacccttgat
 300
 ccaggcaccc gcgagatcac ccgcgggaac cgtcgcatca gtttgacgcg t
 351

<210> 842
 <211> 117
 <212> PRT
 <213> Homo sapiens

<400> 842
 Ser Gly Thr His Pro Asp Ala Val Ile Met Asp Val Met Met Pro Arg
 1 5 10 15
 Leu Asp Gly Leu Glu Ala Thr Arg Met Leu Arg Ser Asn Gly Asn Asp
 20 25 30
 Val Pro Ile Leu Val Leu Thr Ala Arg Asp Ala Val Asp Asp Arg Val
 35 40 45
 Asp Gly Leu Asp Ala Gly Ala Asp Asp Tyr Met Val Lys Pro Phe Ala
 50 55 60
 Leu Asp Glu Leu Leu Ala Arg Leu Arg Ala Leu Thr Arg Arg Ser Arg
 65 70 75 80
 Pro Glu Pro Glu Gln Asn Glu Ala Pro Glu Gln Leu Ser Phe Ala Asp
 85 90 95
 Leu Thr Leu Asp Pro Gly Thr Arg Glu Ile Thr Arg Gly Asn Arg Arg
 100 105 110
 Ile Ser Leu Thr Arg
 115

<210> 843
 <211> 393
 <212> DNA
 <213> Homo sapiens

<400> 843
 ctagcccagg ctctcgtcca cgaggggctg cgcgctgtgg cctctggggc aaaccgggtc
 60
 ggccctcaagc gcggtatcga gaaggctgtc gacgccgttg tggaggagct ccgctctatc
 120
 tcgcgcgcca tcgacaccac ctccgacatg gccagcgctg ccaccatctc cagccgtgac
 180
 gagaccatcg gcgcctcat cgctgaggcc ttcgacaagg ttggttaagga cggggttatc
 240
 accgtcgacg agtcgcagac cttcggcact gagcttgact tcaccgaggg catgcagttc
 300
 gacaagggtt acctgtcgcc ctacatggtc accgaccagg ttcgcatgga ggctgtgac
 360
 gaggatcctt acatcctcat tcaactcccgc aag
 393

<210> 844
 <211> 131
 <212> PRT

<213> Homo sapiens

<400> 844

```

Leu Ala Gln Ala Leu Val His Glu Gly Leu Arg Ala Val Ala Ser Gly
 1           5           10           15
Ala Asn Pro Val Gly Leu Lys Arg Gly Ile Glu Lys Ala Val Asp Ala
 20           25           30
Val Val Glu Glu Leu Arg Ser Ile Ser Arg Ala Ile Asp Thr Thr Ser
 35           40           45
Asp Met Ala Ser Val Ala Thr Ile Ser Ser Arg Asp Glu Thr Ile Gly
 50           55           60
Ala Leu Ile Ala Glu Ala Phe Asp Lys Val Gly Lys Asp Gly Val Ile
 65           70           75           80
Thr Val Asp Glu Ser Gln Thr Phe Gly Thr Glu Leu Asp Phe Thr Glu
 85           90           95
Gly Met Gln Phe Asp Lys Gly Tyr Leu Ser Pro Tyr Met Val Thr Asp
 100          105          110
Gln Val Arg Met Glu Ala Val Ile Glu Asp Pro Tyr Ile Leu Ile His
 115          120          125
Ser Arg Lys
 130

```

<210> 845

<211> 505

<212> DNA

<213> Homo sapiens

<400> 845

```

gccacctgcc caaggctgga tgacgggcct agggcacatc taaggaacaa ggacaggaca
 60
gaagcaaagc cacagctgct ggggcagggt gggggccggt atgtctggcc agcagcatca
 120
ccctgcccc cggcggggct ccaggaccgg gagactcatc agccggaagc tcttgaggga
 180
ggcggctgcc gtgaagacag gcacccttgc tcctgagagg ggcacccaga gaaccaagac
 240
tcagcagagg gaacacaggg ctacgcccag gcccaggcc tgatatccag agtctaaatc
 300
ccacctcagc ccagggggga gccttgagag gagctatgtc cctcatggac ccagtttcc
 360
tctgcatacg ggctccgagc cctgcactgc ctccagggtg gttcccaagg tcttttccca
 420
ttacctcta cgtgagcact cagtaaacca atacacatac acaagggtga cattaattcc
 480
agccacagaa tcccaggcca cgcgt
 505

```

<210> 846

<211> 130

<212> PRT

<213> Homo sapiens

<400> 846

```

Met Gly Lys Asp Leu Gly Asn Tyr Pro Gly Gly Ser Ala Gly Leu Gly

```

```

      1              5              10              15
Ala Arg Met Gln Arg Lys Leu Gly Ser Met Arg Asp Ile Ala Pro Leu
      20              25              30
Lys Ala Pro Pro Trp Ala Glu Val Gly Phe Arg Leu Trp Ile Ser Gly
      35              40              45
Leu Gly Pro Gly Arg Ser Pro Val Phe Pro Leu Leu Ser Leu Gly Ser
      50              55              60
Leu Gly Ala Pro Leu Arg Ser Lys Gly Ala Cys Leu His Gly Ser Arg
      65              70              75              80
Leu Leu Gln Glu Leu Pro Ala Asp Glu Ser Pro Gly Pro Gly Ala Pro
      85              90              95
Pro Gly Ala Gly Val Met Leu Leu Ala Arg His Thr Gly Pro His Pro
      100             105             110
Ala Pro Ala Ala Val Ala Leu Leu Ser Cys Pro Cys Ser Leu Asp
      115             120             125
Val Pro
      130

```

<210> 847

<211> 448

<212> DNA

<213> Homo sapiens

<400> 847

```

aagcttttaa aggagcaaga aaacatgaaa gagctagtag tcaaccttct ccgcatgact
60
caaatcaaaa ttgatgaaaa ggaacaaaag tccaaggatt tcctgaaagc tcagcaaaaa
120
tacaccaaca ttgttaaaga aatgaaagca aaggatcttg aaatcaggat acacaagaag
180
aaaaaatgtg aaatttatcg gagactgaga gagcttgcta aactgtatga caccattcga
240
aatgaaagaa acaaatttgt taacttactc cacaaagctc atcagaaagt aaatgaaata
300
aaagaaaggc ataaaatgtc attaaatgaa cttgaaattc tgagaaatag tgccgttagt
360
caagaaagaa agctacaaaa ttccatgctg aaacacgcca acaatgttac catcagagag
420
agcatgcaaa acgatgtgcg caaaattt
448

```

<210> 848

<211> 149

<212> PRT

<213> Homo sapiens

<400> 848

```

Lys Leu Leu Lys Glu Gln Glu Asn Met Lys Glu Leu Val Val Asn Leu
      1              5              10              15
Leu Arg Met Thr Gln Ile Lys Ile Asp Glu Lys Glu Gln Lys Ser Lys
      20              25              30
Asp Phe Leu Lys Ala Gln Gln Lys Tyr Thr Asn Ile Val Lys Glu Met
      35              40              45
Lys Ala Lys Asp Leu Glu Ile Arg Ile His Lys Lys Lys Lys Cys Glu

```

```

      50              55              60
Ile Tyr Arg Arg Leu Arg Glu Leu Ala Lys Leu Tyr Asp Thr Ile Arg
65              70              75              80
Asn Glu Arg Asn Lys Phe Val Asn Leu Leu His Lys Ala His Gln Lys
      85              90              95
Val Asn Glu Ile Lys Glu Arg His Lys Met Ser Leu Asn Glu Leu Glu
      100              105              110
Ile Leu Arg Asn Ser Ala Val Ser Gln Glu Arg Lys Leu Gln Asn Ser
      115              120              125
Met Leu Lys His Ala Asn Asn Val Thr Ile Arg Glu Ser Met Gln Asn
      130              135              140
Asp Val Arg Lys Ile
145

```

<210> 849
 <211> 463
 <212> DNA
 <213> Homo sapiens

```

<400> 849
nnacgcgtga ttgttggggc caaggaatgc catgtggaga gtgcaggtga agtgataagt
60
cttttggaga tggggaatgc agccagacat acaggtacca ctcaaataaa tgagcactcc
120
agcagatcac atgcaatttt tacaatcagc atttgtcaag ttcataaaaa tatggaggca
180
gctgaagatg gatcatggta ttccctcgg catattgtct caaagttcca ctttgtggat
240
ttggcaggat cagaaagagt aaccaaaacg gggaataactg gtgaacgggt caaagaatcc
300
attcaaatca atagtggatt gctggcttta ggaaatgtaa taagcgctct tggggaccca
360
cgcaggaaga gttcacatat tccatatagg gatgctaaaa ttaccgggt tctgaaagat
420
tctctgggag gcagtgctaa gactgtcatg atcacatgtg tca
463

```

<210> 850
 <211> 154
 <212> PRT
 <213> Homo sapiens

```

<400> 850
Xaa Arg Val Ile Val Gly Ala Lys Glu Cys His Val Glu Ser Ala Gly
1      5      10      15
Glu Val Ile Ser Leu Leu Glu Met Gly Asn Ala Ala Arg His Thr Gly
20     25     30
Thr Thr Gln Met Asn Glu His Ser Ser Arg Ser His Ala Ile Phe Thr
35     40     45
Ile Ser Ile Cys Gln Val His Lys Asn Met Glu Ala Ala Glu Asp Gly
50     55     60
Ser Trp Tyr Ser Pro Arg His Ile Val Ser Lys Phe His Phe Val Asp
65     70     75     80
Leu Ala Gly Ser Glu Arg Val Thr Lys Thr Gly Asn Thr Gly Glu Arg

```

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | | 85 | | | | 90 | | | | | 95 | | |
| Phe | Lys | Glu | Ser | Ile | Gln | Ile | Asn | Ser | Gly | Leu | Leu | Ala | Leu | Gly | Asn |
| | | | | 100 | | | | 105 | | | | | 110 | | |
| Val | Ile | Ser | Ala | Leu | Gly | Asp | Pro | Arg | Arg | Lys | Ser | Ser | His | Ile | Pro |
| | | | | 115 | | | | 120 | | | | | 125 | | |
| Tyr | Arg | Asp | Ala | Lys | Ile | Thr | Arg | Leu | Leu | Lys | Asp | Ser | Leu | Gly | Gly |
| | | | | 130 | | | 135 | | | | | | 140 | | |
| Ser | Ala | Lys | Thr | Val | Met | Ile | Thr | Cys | Val | | | | | | |
| 145 | | | | | | 150 | | | | | | | | | |

```
<210> 851
<211> 372
<212> DNA
<213> Homo sapiens
```

```
<400> 851
aaatttctctg tttctgatcg acgaaataaa gtttagcgtg atgagtgagc tgcttatgca
60
gttccctccat tgccttataa acagttttat ttctcatttc gaaaactctc gatgcagaat
120
aaaggctaga gtctggggac caagtcccca gctccgttta cgcgacttcc ttgaccttgt
180
ttgttatgct gataaggtta ttcagcttga cgatttgttc gtgggtcttcc aaccgttttg
240
cagctggctg acgatattcc tggtaggaac tacgatagaa gaccagcatc ggaagaactt
300
tgtagatgct gaacaaacac ccaccgatca cttcagcctc gaagtaaggg ttatactgtc
360
taacccacgc gt
372
```

```
<210> 852
<211> 110
<212> PRT
<213> Homo sapiens
```

```

<400> 852
Met Ser Glu Leu Leu Met Gln Phe Leu His Ser Leu Ile Asn Ser Phe
 1          5          10          15
Ile Ser His Phe Glu Asn Ser Arg Cys Arg Ile Lys Ala Arg Val Trp
          20          25          30
Gly Pro Ser Pro Gln Leu Arg Leu Arg Asp Phe Leu Asp Leu Val Cys
          35          40          45
Tyr Ala Asp Lys Val Ile Gln Leu Asp Asp Leu Phe Val Val Phe Gln
          50          55          60
Pro Phe Cys Ser Trp Ser Thr Ile Phe Leu Val Gly Thr Thr Ile Glu
65          70          75          80
Asp Gln His Arg Lys Asn Phe Val Asp Ala Glu Gln Thr Pro Thr Asp
          85          90          95
His Phe Ser Leu Glu Val Arg Val Ile Leu Ser Asn Pro Arg
          100          105          110

```

<210> 853
<211> 423

<212> DNA

<213> Homo sapiens

<400> 853

```
acgcgttcag aaacttatgg tgaaatggcc gaactagaaa acctagtcga cgaatattac
60
caagctatgg gcatggatgt gcgtcgagaa acctggctgc gcgagcagat actcaagaaa
120
gtccaagaaa cgcatttggt agaagagctt gcaggcatag aatcagggtga tgatggcgca
180
gtgggtggaag agagcgtatt agaaggcctc gatacctatt tatgtgagat aaaagaagca
240
cagattcgtc atggattgca tcgtcttggga gaattaccag aagacgataa attggccgat
300
accttggtcg ccttattgcg tttaccccggt ggcagtgaca ttaccagcaa ggaattttg
360
catgccttaa tggcagattt agagttagaa caagacgatt ttgacccaat gcaaagcacg
420
cgt
423
```

<210> 854

<211> 141

<212> PRT

<213> Homo sapiens

<400> 854

```
Thr Arg Ser Glu Thr Tyr Gly Glu Met Ala Glu Leu Glu Asn Leu Val
1           5           10           15
Asp Glu Tyr Tyr Gln Ala Met Gly Met Asp Val Arg Arg Glu Thr Trp
20           25           30
Leu Arg Glu Gln Ile Leu Lys Lys Val Gln Glu Thr His Leu Leu Glu
35           40           45
Glu Leu Ala Gly Ile Glu Ser Gly Asp Asp Gly Ala Val Val Glu Glu
50           55           60
Ser Val Leu Glu Gly Leu Asp Thr Tyr Leu Cys Glu Ile Lys Glu Ala
65           70           75           80
Gln Ile Arg His Gly Leu His Arg Leu Gly Glu Leu Pro Glu Asp Asp
85           90           95
Lys Leu Ala Asp Thr Leu Val Ala Leu Leu Arg Leu Pro Arg Gly Ser
100          105          110
Asp Ile Thr Ser Lys Gly Ile Leu His Ala Leu Met Ala Asp Leu Glu
115          120          125
Leu Glu Gln Asp Asp Phe Asp Pro Met Gln Ser Thr Arg
130          135          140
```

<210> 855

<211> 338

<212> DNA

<213> Homo sapiens

<400> 855

```
acgcgtgaag ggggagctca aagtagatgg acctctgact agatggagct ctgagtaaga
60
```

tgaatgtctg tgcggatggt gctcacagca agatagtgtc tggagcgtt ggcacttcga
 120
 acaagatgga gcatggagca gatggagctc tgagcaagat ggagcgtgga gtagatagag
 180
 cttggagcaa gaaggagctc caagcaagat ggagcttgca gcagggtgctt ctcagtgtaa
 240
 gatggagctc agagaagatg atgctcagag taagattgag ctcggtgatt ggcactccaa
 300
 acattgctct gagcccattg gagnetctga gcagaaag
 338

<210> 856

<211> 93

<212> PRT

<213> Homo sapiens

<400> 856

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Asn | Val | Cys | Ala | Asp | Val | Ala | His | Ser | Lys | Ile | Val | Leu | Gly | Ala |
| 1 | | | | 5 | | | | | 10 | | | | 15 | | |
| Ile | Gly | Thr | Ser | Asn | Lys | Met | Glu | His | Gly | Ala | Asp | Gly | Ala | Leu | Ser |
| | | | 20 | | | | | 25 | | | | 30 | | | |
| Lys | Met | Glu | Arg | Gly | Val | Asp | Arg | Ala | Trp | Ser | Lys | Lys | Glu | Leu | Gln |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Ala | Arg | Trp | Ser | Leu | Gln | Gln | Val | Leu | Leu | Ser | Val | Arg | Trp | Ser | Ser |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Glu | Lys | Met | Met | Leu | Arg | Val | Arg | Leu | Ser | Ser | Val | Ile | Gly | Thr | Pro |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Asn | Ile | Ala | Leu | Ser | Pro | Leu | Glu | Xaa | Leu | Ser | Arg | Lys | | | |
| | | | 85 | | | | | | 90 | | | | | | |

<210> 857

<211> 435

<212> DNA

<213> Homo sapiens

<400> 857

ccggacagtg ggccaccagt gtttgccccc agcaatcatg tcagtgaagc ccaacctcgg
 60
 gagacacccc ggcccctcat gcctcctacc aagcctttcc tagcacctga gaccaccagc
 120
 cctggtgaca ggggtggagac ccctgtgggg gagagagccc caaccctgt ctcagcaagc
 180
 tctgaggtct ccctgagag ccaagaggac tcagagaccc cagcagagga ggacagtggc
 240
 tctgagcagc ctcccaacag cgtcctgcct gacaaactga aggtgagctg ggagaacccc
 300
 agccccagg agggccctgc tgcagagagt gcagaaccgt cccaggcacc ctgttctgag
 360
 acttctgagg ctgccccag ggagggtggg aagcccccta caccaccacc caagatctta
 420
 tcagagaaac tgaaa
 435

<210> 858

<211> 145

<212> PRT

<213> Homo sapiens

<400> 858

```

Pro Asp Ser Gly Pro Pro Val Phe Ala Pro Ser Asn His Val Ser Glu
 1           5           10           15
Ala Gln Pro Arg Glu Thr Pro Arg Pro Leu Met Pro Pro Thr Lys Pro
          20           25           30
Phe Leu Ala Pro Glu Thr Thr Ser Pro Gly Asp Arg Val Glu Thr Pro
          35           40           45
Val Gly Glu Arg Ala Pro Thr Pro Val Ser Ala Ser Ser Glu Val Ser
          50           55           60
Pro Glu Ser Gln Glu Asp Ser Glu Thr Pro Ala Glu Glu Asp Ser Gly
65           70           75           80
Ser Glu Gln Pro Pro Asn Ser Val Leu Pro Asp Lys Leu Lys Val Ser
          85           90           95
Trp Glu Asn Pro Ser Pro Gln Glu Ala Pro Ala Ala Glu Ser Ala Glu
          100          105          110
Pro Ser Gln Ala Pro Cys Ser Glu Thr Ser Glu Ala Ala Pro Arg Glu
          115          120          125
Gly Gly Lys Pro Pro Thr Pro Pro Pro Lys Ile Leu Ser Glu Lys Leu
          130          135          140
Lys
145

```

<210> 859

<211> 561

<212> DNA

<213> Homo sapiens

<400> 859

```

nacgcgtgggt gtggtaatcc ggtttctgggt ggcgacggct gccacccctc gtggcaagac
60
atgccgttgc gtgccgatat gccatacgaa gcttggccta gtgcgaaaag ctcgctggaa
120
ccctcgaaga ggcagggctcg gcagggttacc gtggtcggtg tacgcatcgt ttcgacgatg
180
aaccaccattc tgggagcaga tatgacgacg taccagtacc tcattgtcgg tggcgggatg
240
gccgctgatt ctgccgcccg cggatatccgc gacatcgaca agaaagggtc gatcgccatc
300
ctcagcgctg acgtcgacgc cccgtatcct cggccagcgc tgagcaagaa gctgtggact
360
gaccctgagt tcacctggga ccaggctgac cttgctactg tcgctgacac cggcgcgga
420
ttgcggctcg gcactgaggt gctcagcatt gaccgtgacg gcaagaccgt cctgaccgct
480
tccggccagg tattcggcta ccagaagttg ctgctcgta ccggccttac cccgtcgcgc
540
attgacgacg acggcgatgc c
561

```

<210> 860

<211> 187

<212> PRT

<213> Homo sapiens

<400> 860

```

Xaa Ala Trp Cys Gly Asn Pro Val Ser Gly Gly Asp Gly Cys His Pro
 1           5           10           15
Ser Trp Gln Asp Met Pro Leu Arg Ala Asp Met Pro Tyr Glu Ala Trp
      20           25           30
Pro Ser Ala Lys Ser Ser Leu Glu Pro Ser Lys Arg Gln Gly Arg Gln
      35           40           45
Val Thr Val Val Gly Val Arg Ile Val Ser Thr Met Asn Pro Ile Leu
      50           55           60
Gly Ala Asp Met Thr Thr Tyr Gln Tyr Leu Ile Val Gly Gly Gly Met
65           70           75           80
Ala Ala Asp Ser Ala Ala Arg Gly Ile Arg Asp Ile Asp Lys Lys Gly
      85           90           95
Ser Ile Ala Ile Leu Ser Ala Asp Val Asp Ala Pro Tyr Pro Arg Pro
      100          105          110
Ala Leu Ser Lys Lys Leu Trp Thr Asp Pro Glu Phe Thr Trp Asp Gln
      115          120          125
Val Asp Leu Ala Thr Val Ala Asp Thr Gly Ala Glu Leu Arg Leu Gly
      130          135          140
Thr Glu Val Leu Ser Ile Asp Arg Asp Gly Lys Thr Val Leu Thr Ala
145          150          155          160
Ser Gly Gln Val Phe Gly Tyr Gln Lys Leu Leu Leu Val Thr Gly Leu
      165          170          175
Thr Pro Ser Arg Ile Asp Asp Asp Gly Asp Ala
      180          185

```

<210> 861

<211> 352

<212> DNA

<213> Homo sapiens

<400> 861

```

ccatggggtt ctatgctctg aggtttcatc tgtggggaac agtattgact tacttacaaa
60
gagataatgg tcatacccta tggtcactca ccatagtctg gcggtacatg gactttctcag
120
ccccagtaag atctgtatcc acaggacact taaagtcacc ttacagaggg ctatcccagt
180
gectgaggcc tattagaggc gtctcttttc agccatcagt gttagaggcc atctgcatgg
240
gatcccagag cctgcctcgg gaatggcaga agctggctgg tgcttgccgt gggctttgcc
300
tgtttctactg ctttcagggg ggccctgccac aggggagaaa ctgggggggg ga
352

```

<210> 862

<211> 116

<212> PRT

<213> Homo sapiens

<400> 862

```

Met Gly Phe Tyr Ala Leu Arg Phe His Leu Trp Gly Thr Val Leu Thr
 1           5           10           15
Tyr Leu Gln Arg Asp Asn Gly His Thr Leu Trp Ser Leu Thr Ile Val
          20           25           30
Trp Arg Tyr Met Asp Phe Ser Ala Pro Val Arg Ser Val Ser Thr Gly
          35           40           45
His Leu Lys Ser Pro Tyr Arg Gly Leu Ser Gln Cys Leu Arg Pro Ile
          50           55           60
Arg Gly Val Ser Phe Gln Pro Ser Val Leu Glu Ala Ile Cys Met Gly
65           70           75           80
Ser Gln Ser Leu Pro Arg Glu Trp Gln Lys Leu Ala Gly Ala Trp Arg
          85           90           95
Gly Leu Cys Leu Phe His Cys Phe Gln Gly Gly Leu Pro Gln Gly Arg
          100          105          110
Asn Trp Gly Gly
          115

```

<210> 863

<211> 327

<212> DNA

<213> Homo sapiens

<400> 863

```

tccggatcga cccggacgaa ttccacggtc cagccattga cttccaaatg ctctttgaca
60
tacgccgtga catgttcaat gtccaactta cgcattgtcca cccgctcacc ggtctcattg
120
agtttgagct gcgagtagac gttgcggttag ttctcggtga ccgactgctc atacgagatg
180
tgcagaagca tcggtttgcg gccatcctcg gacggcattg gcttggttga catggccgct
240
tggcggaaca tgttcagggg aaagcccgcac ttgaagttgt gcgacagggc agaaacacac
300
agcatttctg accggcgatg acccatn
327

```

<210> 864

<211> 108

<212> PRT

<213> Homo sapiens

<400> 864

```

Met Gly His Arg Arg Ser Glu Met Leu Cys Val Ser Ala Leu Ser His
 1           5           10           15
Asn Phe Lys Ser Gly Phe Thr Leu Asn Met Phe Arg Gln Ala Ala Met
          20           25           30
Tyr Asn Lys Pro Met Pro Ser Glu Asp Gly Arg Lys Pro Met Leu Leu
          35           40           45
His Ile Ser Tyr Glu Gln Ser Val Asn Glu Asn Tyr Arg Asn Val Tyr
          50           55           60
Ser Gln Leu Lys Leu Asn Glu Thr Gly Glu Arg Val Asp Met Arg Lys
65           70           75           80
Leu Asp Ile Glu His Val Thr Ala Tyr Val Lys Glu His Leu Glu Val

```

85 90 95
 Asn Gly Trp Thr Val Glu Phe Val Arg Val Asp Pro
 100 105

<210> 865
 <211> 729
 <212> DNA
 <213> Homo sapiens

<400> 865
 acgcgtcatc ctcattcaag aggccccagga ggagcaccac cctccgcata ttgcgcgtgc
 60
 agctctcgtt ctgggtctctg agcatgccc a ggcgctctg cacacagctt ctcagcagcc
 120
 tgggtggtgtc caggatcgac acatcactgc ctccgagttc agaggtttcc tttcccacct
 180
 tctcagaact ttctgtttcc atggcctcct ctgccacctc tgccacctcc cctgatgtgc
 240
 tggcctccgt ctccatcgcc tcctcatggc cgtcttccgc ccggtgttcc aagcccagct
 300
 caggcaagtc tccgggcgcg aacagctggc tgatggtgac atgctgcagc ctggtcacat
 360
 cagaaaccat gaggtggat ctccggaggt catcgatgtg gacagactgc cacagccctc
 420
 cgtggaagcc cacatagget gttcctcttc ccacccggga cagttttgtg atgaaataga
 480
 cgaagatacg gtcctcatth tctcgtatth tgttgatttc atttataaca gaatacttag
 540
 ctgaggcaat gagctgggcg ctacggattc catcttcaaa atctgtctga aaaatgagga
 600
 ttttacatth ggctgtattc gttaaacagt ttcggacttc tttgaggaat gagtactcgg
 660
 tgtcaaaactg ctgcagccac aggagtgtgg gtttcggagc cctgcctgtg acctctgatt
 720
 ctaaaattt
 729

<210> 866
 <211> 83
 <212> PRT
 <213> Homo sapiens

<400> 866
 Ala Cys Pro Arg Arg Ser Ala His Ser Phe Ser Ala Ala Trp Trp Cys
 1 5 10 15
 Pro Gly Ser Thr His His Cys Leu Arg Val Gln Arg Phe Pro Phe Pro
 20 25 30
 Pro Ser Gln Asn Phe Leu Phe Pro Trp Pro Pro Leu Pro Pro Leu Pro
 35 40 45
 Pro Pro Leu Met Cys Trp Pro Pro Ser Pro Ser Pro Pro His Gly Arg
 50 55 60
 Leu Pro Pro Gly Val Pro Ser Pro Ala Gln Ala Ser Leu Arg Ala Arg
 65 70 75 80
 Thr Ala Gly

<210> 867
 <211> 640
 <212> DNA
 <213> Homo sapiens

<400> 867
 nntccggaac atcaagatcc aggcgcagaa gaccgtcaga agctgcactg gccacctcct
 60
 tcaggtggac tctcgttggg ggccggcgtc gctggccccc tcgcaccggg tcccgtgtca
 120
 catgctccag ggcgcagctc ttgtccacct ttacctcatc gaaagccttg tttttgcctc
 180
 ggtaaatccc ttcattgagg gctttgatcc aggattcctt ctctctcccg gtgggtgcct
 240
 ggaatttgat gtcgctgacc ttgttccttg gggatcgag caggataaag cggtgttttc
 300
 gcttgaggag ggcacgaagg tcctggcact tctcatagct gccagctcc acagtctcca
 360
 cacacttctg atcatcctca ttctcataga ccagcagctg ggccctggcag aggagcagat
 420
 atcggctctt ccagaaaccc aggaggcccc cactgctctt cttgatccag ccagccttgt
 480
 ccaccatctg tgtccccga ggcttctcac cggcttcctt cacaccctcc tcctccatgg
 540
 cgagtcggcc gaggtcccg cgtccgcca ctgcttcca gcgccgcgcg ggctctgcca
 600
 ccgcgtctac gcccgccag gcggcgactc tccgcgttct
 640

<210> 868
 <211> 52
 <212> PRT
 <213> Homo sapiens

<400> 868
 Gly Gly His Glu Gly Pro Gly Thr Ser His Ser Cys Pro Ala Pro Gln
 1 5 10 15
 Ser Pro His Thr Ser Asp His Pro His Ser His Arg Pro Ala Ala Gly
 20 25 30
 Pro Gly Arg Gly Ala Asp Ile Gly Leu Ser Arg Asn Pro Gly Gly Pro
 35 40 45
 His Cys Ser Ser
 50

<210> 869
 <211> 321
 <212> DNA
 <213> Homo sapiens

<400> 869
 ngggatgatgc tgctcgcggc attgagcatc tttgtgtca gcgcgctgtt tatcgacaac
 60

ttcctgtcgc cgctgaatat ggcggggctg ggccctggcga ttctgacggt gggcatcgct
 120
 gcgtgcacca tgctgttctg cctggcgctg gggcatttcg acttgtcggt gggctcgggtg
 180
 atgcctctgtg ccggtgtggt cgcggggatt gtgattcgtg acaccgatag cgtggcactc
 240
 ggcggtgtccg ctgcgttggc catgggcctg gtagtggggc tgatcaacgg catcgtgatc
 300
 gccaaagctgc gcatcaacgc g
 321

<210> 870

<211> 107

<212> PRT

<213> Homo sapiens

<400> 870

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Val | Met | Leu | Leu | Ala | Ala | Leu | Ser | Ile | Phe | Val | Leu | Ser | Ala | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Phe | Ile | Asp | Asn | Phe | Leu | Ser | Pro | Leu | Asn | Met | Arg | Gly | Leu | Gly | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Ile | Ser | Thr | Val | Gly | Ile | Ala | Ala | Cys | Thr | Met | Leu | Phe | Cys | Leu |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Ala | Ser | Gly | His | Phe | Asp | Leu | Ser | Val | Gly | Ser | Val | Ile | Ala | Cys | Ala |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Gly | Val | Val | Ala | Gly | Ile | Val | Ile | Arg | Asp | Thr | Asp | Ser | Val | Ala | Leu |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Gly | Val | Ser | Ala | Ala | Leu | Ala | Met | Gly | Leu | Val | Val | Gly | Leu | Ile | Asn |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Gly | Ile | Val | Ile | Ala | Lys | Leu | Arg | Ile | Asn | Ala | | | | | |
| | | | 100 | | | | | 105 | | | | | | | |

<210> 871

<211> 320

<212> DNA

<213> Homo sapiens

<400> 871

agatcttcag agtcctcgtc ttttaaattgg gggtaacagc agcaagtcct cagaggtgtc
 60
 ctgagcctca aaacacatcc tggtttgtaa cgtccgcagc ctcagcaggg gctaggcaca
 120
 gaacaagcat tcaggacctg gaaggtacca gcgacacctg gtcctccctt cccaggcaca
 180
 aggcagcccc tctccattca agctctgccc cagcccagca aagagagggg tctcagcca
 240
 ctgccccac cactaccaca atcatactca cctctcctgg tccatacgtg acaaaggacc
 300
 tgccacggcc aggagacaa
 320

<210> 872

<211> 98

<212> PRT

<213> Homo sapiens

<400> 872

```

Met Gly Val Thr Ala Ala Ser Pro Gln Arg Cys Pro Glu Pro Gln Asn
 1           5           10           15
Thr Ser Trp Phe Val Thr Ser Ala Ala Ser Ala Gly Ala Arg His Arg
 20           25           30
Thr Ser Ile Gln Asp Leu Glu Gly Thr Ser Asp Thr Trp Ser Ser Leu
 35           40           45
Pro Arg His Lys Ala Ala Pro Leu His Ser Ser Ser Ala Pro Ala Gln
 50           55           60
Gln Arg Glu Gly Ser Ser Ala Thr Ala Pro Thr Thr Thr Thr Ile Ile
 65           70           75           80
Leu Thr Ser Pro Gly Pro Tyr Val Thr Lys Asp Leu Pro Arg Pro Gly
 85           90           95
Arg Gln

```

<210> 873

<211> 363

<212> DNA

<213> Homo sapiens

<400> 873

```

nttgtttagc atcgtttttt acgggtgtat cagcgcgttt agcagcgttt ttagcggatg
60
catcagcatg ttttgcgtca cgttttacaa ctgtgctacc gtgttttagca tcatttttga
120
cggaggatc aatacgttta gcatcgtttt taacagatgt atcaacacgg ggttcatccg
180
cttttagcaga atccccagct ctagtagcca ctttagatac ttcagatttt atatgagtcg
240
cagttgtttc agcgtgagcc atgctgaatg tagaaccaag ggccaatgta attgctaaag
300
acaaagataa tttatttagt ttcattgttc gagagaagtg tgcgaattcg gcgatacagt
360
cag
363

```

<210> 874

<211> 108

<212> PRT

<213> Homo sapiens

<400> 874

```

Met Lys Leu Asn Lys Leu Ser Leu Ser Leu Ala Ile Thr Leu Ala Leu
 1           5           10           15
Gly Ser Thr Phe Ser Met Ala His Ala Glu Thr Thr Ala Thr His Ile
 20           25           30
Lys Ser Glu Val Ser Lys Val Ala Thr Arg Ala Gly Asp Ser Ala Lys
 35           40           45
Ala Asp Glu Pro Arg Val Asp Thr Ser Val Lys Asn Asp Ala Lys Arg
 50           55           60
Ile Asp Thr Ser Val Lys Asn Asp Ala Lys His Gly Ser Thr Val Val

```


caatccacct atgctaaacg tggtcagcaa gggtatctca cactgagaatt ctttggtttg
 120
 ttggccaata ccatgggaga tcaaatcctt ttagtacagg cgtacagaga aggcgaagcg
 180
 atcgccgcgt cgtgggtgttt ctttgatgat cattcactat atgggcgtta ttggggctgt
 240
 atggaagaag tggattgcct gcattttgaa gcttggtatt accaaggaat cgagttttgt
 300
 ctcgaaaaag gggtacagca tttcgatccg ggtacacaag gggaacacaa gattgcgcgc
 360
 ggctttgaac ctgttttttag ccacagcgtg cattacattg ctcacaaagg ttttcgtgaa
 420
 gcgattggga atttctgtga ggaagaagcg caagctgtgc gcgagtatca tcaagatacc
 480
 cactgcgt
 487

<210> 878
 <211> 162
 <212> PRT
 <213> Homo sapiens

<400> 878
 Thr Arg Thr Leu Gly Asn Glu Leu Thr Thr Ala Glu Ile Asp Cys Leu
 1 5 10 15
 Tyr Leu Cys Tyr Gln Ser Thr Tyr Ala Lys Arg Gly Gln Gln Gly Tyr
 20 25 30
 Leu Thr Arg Glu Phe Phe Gly Leu Leu Ala Asn Thr Met Gly Asp Gln
 35 40 45
 Ile Leu Leu Val Gln Ala Tyr Arg Glu Gly Glu Ala Ile Ala Ala Ser
 50 55 60
 Trp Cys Phe Phe Asp Asp His Ser Leu Tyr Gly Arg Tyr Trp Gly Cys
 65 70 75 80
 Met Glu Glu Val Asp Cys Leu His Phe Glu Ala Cys Tyr Tyr Gln Gly
 85 90 95
 Ile Glu Phe Cys Leu Glu Lys Gly Leu Gln His Phe Asp Pro Gly Thr
 100 105 110
 Gln Gly Glu His Lys Ile Ala Arg Gly Phe Glu Pro Val Phe Ser His
 115 120 125
 Ser Val His Tyr Ile Ala His Gln Gly Phe Arg Glu Ala Ile Gly Asn
 130 135 140
 Phe Cys Glu Glu Glu Ala Gln Ala Val Arg Glu Tyr His Gln Asp Thr
 145 150 155 160
 His Ala

<210> 879
 <211> 993
 <212> DNA
 <213> Homo sapiens

<400> 879
 ncttagcat ttaagccaac gaggcagcta atgtcctctg aacagcaaag gaaattcagc
 60

agccagtcca gtagggctct gacccctcct tcctacagta ctgctaaaaa ttcattggga
 120
 tcaagatcca gtgaatcctt tgggaagtac acatcgccag taatgagtga gcatggggac
 180
 gagcacaggc agctcctctc tcacccaatg caaggccctg gactccgtgc agctacctca
 240
 tccaaccact ctgtggacga gcaactgaag aatactgaca cgcacctcat cgacctggta
 300
 accaatgaga ttatcaccca aggacctcca gtggactgga atgacattgc tgggtctcgac
 360
 ctggtgaagg ctgtcattaa agaggagggtt ttatggccag tgttgagggtc agacgcgttc
 420
 agtggactga cggccttacc tcggagcatt cttttatttg gacctcgggg gacaggcaaa
 480
 acattattgg gcagatgcat cgctagtcag ctgggggcca catttttcaa aattgccggt
 540
 tctggactag tcgccaagggt gttaggagaa gcagagaaaa ttatccatgc ctcttttctt
 600
 gtggccaggt gtcgccagcc ctccgtgatt tttgttagtg acattgacat gcttctctcc
 660
 tctcaagtga atgaggaaca tagtccagtc agtcggatga gaaccgaatt tctgatgcaa
 720
 ctggacactg tactaacttc ggctgaggac caaatcgtag taatttgtgc caccagtaaa
 780
 ccagaagaaa tagatgaatc ctttcggagg tacttcatga aacgactttt aatcccactt
 840
 cctgacagca cagcgaggca ccagataata gtacaactgc tctcacagca caattactgt
 900
 ctcaatgaca aggagtttgc actgctcgtc cagcgcacag aaggcttttc tggactagat
 960
 gtggctcatt tgtgtcagga agcagtgggtg ggc
 993

<210> 880

<211> 331

<212> PRT

<213> Homo sapiens

<400> 880

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Leu | Ala | Phe | Lys | Pro | Thr | Arg | Gln | Leu | Met | Ser | Ser | Glu | Gln | Gln |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Lys | Phe | Ser | Ser | Gln | Ser | Ser | Arg | Ala | Leu | Thr | Pro | Pro | Ser | Tyr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Thr | Ala | Lys | Asn | Ser | Leu | Gly | Ser | Arg | Ser | Ser | Glu | Ser | Phe | Gly |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Lys | Tyr | Thr | Ser | Pro | Val | Met | Ser | Glu | His | Gly | Asp | Glu | His | Arg | Gln |
| | | | 50 | | | | 55 | | | | 60 | | | | |
| Leu | Leu | Ser | His | Pro | Met | Gln | Gly | Pro | Gly | Leu | Arg | Ala | Ala | Thr | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ser | Asn | His | Ser | Val | Asp | Glu | Gln | Leu | Lys | Asn | Thr | Asp | Thr | His | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ile | Asp | Leu | Val | Thr | Asn | Glu | Ile | Ile | Thr | Gln | Gly | Pro | Pro | Val | Asp |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Trp | Asn | Asp | Ile | Ala | Gly | Leu | Asp | Leu | Val | Lys | Ala | Val | Ile | Lys | Glu |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| | | 115 | | | | | 120 | | | | | 125 | | | | |
| Glu | Val | Leu | Trp | Pro | Val | Leu | Arg | Ser | Asp | Ala | Phe | Ser | Gly | Leu | Thr | |
| | 130 | | | | | 135 | | | | | 140 | | | | | |
| Ala | Leu | Pro | Arg | Ser | Ile | Leu | Leu | Phe | Gly | Pro | Arg | Gly | Thr | Gly | Lys | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | |
| Thr | Leu | Leu | Gly | Arg | Cys | Ile | Ala | Ser | Gln | Leu | Gly | Ala | Thr | Phe | Phe | |
| | | | | 165 | | | | | 170 | | | | | 175 | | |
| Lys | Ile | Ala | Gly | Ser | Gly | Leu | Val | Ala | Lys | Gly | Leu | Gly | Glu | Ala | Glu | |
| | | | 180 | | | | | 185 | | | | | 190 | | | |
| Lys | Ile | Ile | His | Ala | Ser | Phe | Leu | Val | Ala | Arg | Cys | Arg | Gln | Pro | Ser | |
| | | 195 | | | | 200 | | | | | 205 | | | | | |
| Val | Ile | Phe | Val | Ser | Asp | Ile | Asp | Met | Leu | Leu | Ser | Ser | Gln | Val | Asn | |
| | 210 | | | | | 215 | | | | | 220 | | | | | |
| Glu | Glu | His | Ser | Pro | Val | Ser | Arg | Met | Arg | Thr | Glu | Phe | Leu | Met | Gln | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | |
| Leu | Asp | Thr | Val | Leu | Thr | Ser | Ala | Glu | Asp | Gln | Ile | Val | Val | Ile | Cys | |
| | | | | 245 | | | | | 250 | | | | | 255 | | |
| Ala | Thr | Ser | Lys | Pro | Glu | Glu | Ile | Asp | Glu | Ser | Leu | Arg | Arg | Tyr | Phe | |
| | | | 260 | | | | | 265 | | | | | 270 | | | |
| Met | Lys | Arg | Leu | Leu | Ile | Pro | Leu | Pro | Asp | Ser | Thr | Ala | Arg | His | Gln | |
| | | 275 | | | | | 280 | | | | | 285 | | | | |
| Ile | Ile | Val | Gln | Leu | Leu | Ser | Gln | His | Asn | Tyr | Cys | Leu | Asn | Asp | Lys | |
| | 290 | | | | | 295 | | | | | 300 | | | | | |
| Glu | Phe | Ala | Leu | Leu | Val | Gln | Arg | Thr | Glu | Gly | Phe | Ser | Gly | Leu | Asp | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | |
| Val | Ala | His | Leu | Cys | Gln | Glu | Ala | Val | Val | Gly | | | | | | |
| | | | | 325 | | | | | 330 | | | | | | | |

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<210> 881
<211> 313
<212> DNA
<213> Homo sapiens
```

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<400> 881
cgcgtagcg tgcacaatgc tccaggaacc ggtgtgtatg aggccgggga ttctaccggt
60
cgtggtttgc agggcatgcg tgagcgcgcc cgtatccatg gcggcaccgc gcgctggggc
120
gactcgcagt attatgaagg cggtttcaac gtcacggtgg agattccaac atgagcggcc
180
aaaggatgaa catggacacg acgcgcccc aacacggtcg gggcttgccg acgatcagcc
240
ggctgggtgc gcaccggttt tgccatggtg ctggattcgc aggacgacat cacggtggcc
300
tggaagccg acn
313
```

```
<210> 882
<211> 57
<212> PRT
<213> Homo sapiens
```

<400> 882
Arg Val Ser Val Asp Asn Ala Pro Gly Thr Gly Val Tyr Glu Ala Gly

```

      1             5             10             15
Asp Ser Thr Gly Arg Gly Leu Gln Gly Met Arg Glu Arg Ala Arg Ile
      20             25             30
His Gly Gly Thr Ala Arg Trp Gly Asp Ser Gln Tyr Tyr Glu Gly Gly
      35             40             45
Phe Asn Val Thr Val Glu Ile Pro Thr
      50             55

```

<210> 883
 <211> 576
 <212> DNA
 <213> Homo sapiens

```

<400> 883
naattaagat ctgggggtccc agtgtcattg gtgaaggcct tgggattcga ggcagctgag
60
tcctcactga ccaaggcaag ccatgcttct gagtgcttga ggccaccgaa atgaacaaat
120
ggaaaacact cccatctttt tcaagcctac cttttagcag aagaggcaga tacacaagcc
180
ctaaagatgt aacatcaggc tgagtggagg aaggctgaga agaaaaataa agcaggctca
240
ggaggagaga gtgatgtcag gatgcccttg tgcttactcc agcctccttg tgaaaaccca
300
gctctcctgt ctcccagtga agacttggat ggcagccatc agggaaggct gggctccagc
360
tgaggagtatg ggtgtgagct ctatagacca tcctctcttg caatcaataa acacttgctt
420
gtgaaagagg cccaagccac catccgcattg gacaccagtg caagtggccc caccgcctg
480
gtcctcagtg actgtgccac cagccatggg agcctgcgca tccaactgct gcataagctc
540
tccttcttgg tgaacgcctt agctaagcag gtcattg
576

```

<210> 884
 <211> 105
 <212> PRT
 <213> Homo sapiens

```

<400> 884
Met Pro Leu Cys Leu Leu Gln Pro Pro Cys Glu Asn Pro Ala Leu Leu
      1             5             10             15
Ser Pro Ser Glu Asp Leu Asp Gly Ser His Gln Gly Arg Leu Gly Pro
      20             25             30
Ser Trp Glu Tyr Gly Cys Glu Leu Tyr Arg Pro Ser Leu Ser Ala Ile
      35             40             45
Asn Lys His Leu Pro Val Lys Glu Ala Gln Ala Thr Ile Arg Met Asp
      50             55             60
Thr Ser Ala Ser Gly Pro Thr Arg Leu Val Leu Ser Asp Cys Ala Thr
      65             70             75             80
Ser His Gly Ser Leu Arg Ile Gln Leu Leu His Lys Leu Ser Phe Leu
      85             90             95
Val Asn Ala Leu Ala Lys Gln Val Met

```

100

105

<210> 885

<211> 370

<212> DNA

<213> Homo sapiens

<400> 885

actagtggcg cccatcatccg ggccgctgtc ccgctctcgg agtcggctgc gttggagtcc
 60
 ggtgaggcga tgctgacgaa cgacacaccg gtgacttggg atggcgggaa agtacggggc
 120
 aggcgggtgt cgcgcctcgg tgcgatcgag ttgtcgtcga ccccggtccg ccagatccg
 180
 gtacgggctc gccacgtggc gctggaagca gtgaggtctg ggggacttga cgtagcgagc
 240
 ctgacgaaga acggtgaatc tttgcgacgc cgtcttgccc tggcccatcg ggtgtttggt
 300
 gatccctggc ccgatgtcag cgatgaggct ctgctagcct gcgccgagga gtggcttgac
 360
 ctcgacgcgt
 370

<210> 886

<211> 123

<212> PRT

<213> Homo sapiens

<400> 886

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Ser | Gly | Ala | Leu | Ile | Arg | Ala | Ala | Val | Pro | Leu | Ser | Glu | Ser | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Leu | Glu | Ser | Gly | Glu | Ala | Met | Leu | Thr | Asn | Asp | Thr | Pro | Val | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Trp | Asp | Gly | Gly | Lys | Val | Arg | Gly | Arg | Arg | Val | Ser | Arg | Leu | Gly | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ile | Glu | Leu | Ser | Ser | Thr | Pro | Val | Arg | Pro | Asp | Pro | Val | Arg | Ala | Arg |
| | 50 | | | | | | 55 | | | | 60 | | | | |
| His | Val | Ala | Leu | Glu | Ala | Val | Arg | Ser | Gly | Gly | Leu | Asp | Val | Ala | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Leu | Thr | Lys | Asn | Gly | Glu | Ser | Leu | Arg | Arg | Arg | Leu | Ala | Leu | Ala | His |
| | | | 85 | | | | | | 90 | | | | 95 | | |
| Arg | Val | Phe | Gly | Asp | Pro | Trp | Pro | Asp | Val | Ser | Asp | Glu | Ala | Leu | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Cys | Ala | Glu | Glu | Trp | Leu | Asp | Leu | Asp | Ala | | | | | |
| | | | 115 | | | | | 120 | | | | | | | |

<210> 887

<211> 447

<212> DNA

<213> Homo sapiens

<400> 887

cagggcgttg cgctcggctg cgtgctgccg atggctcatgc tcggaggctt aaccgccatc
 60

attatctccg gctgcctgaa ccagcttggt aaacgctatc cgcattctgac cggcgaaggc
 120
 caactgatgc caaacctgac taatgctgat accacggctt cccaaccggc gttctccggt
 180
 aaagcggacg tgaccacat tgcctccggc gcgttgctgg ccgtgctgct ttacatgggtg
 240
 ggtaggttgg ttcacaagt gattggcctg cctgctccgg ttggcatgtt gtttgtggcg
 300
 gtgctggcca aactgtgcaa cggcgcttct ccccgctgc tcgaaggctc gcaggtgggt
 360
 tacaaattct tccagacctc cgtcacctat ccgattctgt tcgccgttgg cgtggcgatt
 420
 acgccgtggc aggaactggt caacgcg
 447

<210> 888

<211> 149

<212> PRT

<213> Homo sapiens

<400> 888

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Gly | Val | Ala | Leu | Gly | Arg | Val | Leu | Pro | Met | Val | Met | Leu | Gly | Gly |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Leu | Thr | Ala | Ile | Ile | Ile | Ser | Gly | Cys | Leu | Asn | Gln | Leu | Gly | Lys | Arg |
| | | | 20 | | | | 25 | | | | | 30 | | | |
| Tyr | Pro | His | Leu | Thr | Gly | Glu | Gly | Gln | Leu | Met | Pro | Asn | Arg | Ala | Asn |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Ala | Asp | Thr | Thr | Ala | Ser | Gln | Pro | Ala | Phe | Ser | Gly | Lys | Ala | Asp | Val |
| | 50 | | | | 55 | | | | 60 | | | | | | |
| Thr | Thr | Ile | Ala | Ser | Gly | Ala | Leu | Leu | Ala | Val | Leu | Leu | Tyr | Met | Val |
| 65 | | | | 70 | | | | 75 | | | | | 80 | | |
| Gly | Arg | Leu | Val | His | Lys | Leu | Ile | Gly | Leu | Pro | Ala | Pro | Val | Gly | Met |
| | | | 85 | | | | 90 | | | | | | 95 | | |
| Leu | Phe | Val | Ala | Val | Leu | Val | Lys | Leu | Cys | Asn | Gly | Ala | Ser | Pro | Arg |
| | | 100 | | | | | 105 | | | | | 110 | | | |
| Leu | Leu | Glu | Gly | Ser | Gln | Val | Val | Tyr | Lys | Phe | Phe | Gln | Thr | Ser | Val |
| | | 115 | | | | 120 | | | | | | 125 | | | |
| Thr | Tyr | Pro | Ile | Leu | Phe | Ala | Val | Gly | Val | Ala | Ile | Thr | Pro | Trp | Gln |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Glu | Leu | Val | Asn | Ala | | | | | | | | | | | |
| 145 | | | | | | | | | | | | | | | |

<210> 889

<211> 450

<212> DNA

<213> Homo sapiens

<400> 889

ggtaccaccc cacacctgac aagaggtggc cagggaggaa gggaggggtc ttacctcccc
 60
 atctcccctc agtaaaattc aggatgccca gtgaagtttg aatgtcagat aaacaatttg
 120
 ttagtataag gatgtacctc gcattgaaat gatgccttgt aatttactaa atctgcaact
 180

atgcagcctt atttcatggc gggcagtggc ggtgatccca ggtttcaggg gcggggaagg
 240
 gtgctgggga gacctgagg tcaggaaccc gtacacctct gcttctgccc tctcttccct
 300
 gtgccggcca caaggcaatg actcctgtgt gggcgcagag gcagaaatgg gtctggaagg
 360
 ggattcccag tgtctggcaa gttctggtaa attctgcatt ggaggttctc tctgtagtaa
 420
 ggggagttgg cctggccgcc cttcacgcgt
 450

<210> 890

<211> 100

<212> PRT

<213> Homo sapiens

<400> 890

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Met | Pro | Cys | Asn | Leu | Leu | Asn | Leu | Gln | Leu | Cys | Ser | Leu | Ile | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Trp | Arg | Ala | Val | Ala | Val | Ile | Pro | Gly | Phe | Arg | Gly | Gly | Glu | Gly | Cys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Trp | Gly | Asp | Pro | Glu | Val | Arg | Asn | Pro | Tyr | Thr | Ser | Ala | Ser | Ala | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Ser | Leu | Cys | Arg | Pro | Gln | Gly | Asn | Asp | Ser | Cys | Val | Gly | Ala | Glu |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Ala | Glu | Met | Gly | Leu | Glu | Gly | Asp | Ser | Gln | Cys | Leu | Ala | Ser | Ser | Gly |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Lys | Phe | Cys | Ile | Gly | Gly | Ser | Leu | Cys | Ser | Lys | Gly | Ser | Trp | Pro | Gly |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Arg | Pro | Ser | Arg | | | | | | | | | | | | |
| | | | 100 | | | | | | | | | | | | |

<210> 891

<211> 318

<212> DNA

<213> Homo sapiens

<400> 891

nncaccgtcc ccgtactgga tccgcgcgag gatttcgccg actgcatgca cattgacgta
 60
 ctggatccct tccacactga caacaccagt gagcacagtg acctggccac agatggccag
 120
 actaacggcc cggctgatag cgggactggc acccactctg agcagggaaa ctccgacata
 180
 tctagccccg tcagctctag tgacgtgct aacaccaccg acagcactgc tggcaatacc
 240
 ggtgaaggta ctgccgcgaa tatgcctggg gacatggctc attcttcgac ggctaccac
 300
 ccctatgcaa gcaccggt
 318

<210> 892

<211> 106

<212> PRT

<213> Homo sapiens

<400> 892

```

Xaa Thr Val Pro Val Leu Asp Pro Arg Glu Asp Phe Ala Asp Cys Met
 1           5           10           15
His Ile Asp Val Leu Asp Pro Phe His Thr Asp Asn Thr Ser Glu His
      20           25           30
Ser Asp Leu Ala Thr Asp Gly Gln Thr Asn Gly Pro Ala Asp Ser Gly
      35           40           45
Thr Gly Thr His Ser Glu Gln Gly Asn Ser Asp Ile Ser Ser Pro Val
      50           55           60
Ser Ser Ser Asp Ala Ala Asn Thr Thr Asp Ser Thr Ala Gly Asn Thr
65           70           75           80
Gly Glu Gly Thr Ala Ala Asn Met Pro Gly Asp Met Ala His Ser Ser
      85           90           95
Thr Ala Thr His Pro Tyr Ala Ser Thr Gly
      100           105

```

<210> 893

<211> 510

<212> DNA

<213> Homo sapiens

<400> 893

```

nnggatccta tccctgaatc taaggttggt gacacatgtg tttgggatag caaggtagag
60
aagtcacaga aaaagcctgt ggaaaacagg atgaaggagg acaaaagcag catcagggaa
120
gcaatcagca aagccaagag tacagcaa ataaagacag aacaggaagg tgaggcatct
180
gagaagagct tgcattctgag cccacagcat atcacacacc agactatgcc tataggacag
240
agaggcagtg agcaaggcaa acgtgtggag aacattaatg gaacctccta ccctagtcta
300
cagcagaaaa ccaatgctgt taagaaatta cataaatgtg atgaatgtgg gaaatccttc
360
aaatataatt cccgccttgt tcaacataaa attatgcaca ctggggaaaa gcgctatgaa
420
tgtgatgact gtggaggggac tttccggagc agctcgagcc ttcgggtcca caaacggatc
480
cacactgggt acggagagaa gacaacgcgt
510

```

<210> 894

<211> 170

<212> PRT

<213> Homo sapiens

<400> 894

```

Xaa Asp Pro Ile Pro Glu Ser Lys Val Gly Asp Thr Cys Val Trp Asp
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Ser Lys Val Glu Lys Ser Gln Lys Lys Pro Val Glu Asn Arg Met Lys
      20           25           30
Glu Asp Lys Ser Ser Ile Arg Glu Ala Ile Ser Lys Ala Lys Ser Thr

```

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | 35 | | | | | | 40 | | | | 45 | | | | | | |
| Ala | Asn | Ile | Lys | Thr | Glu | Gln | Glu | Gly | Glu | Ala | Ser | Glu | Lys | Ser | Leu | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| His | Leu | Ser | Pro | Gln | His | Ile | Thr | His | Gln | Thr | Met | Pro | Ile | Gly | Gln | | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | | |
| Arg | Gly | Ser | Glu | Gln | Gly | Lys | Arg | Val | Glu | Asn | Ile | Asn | Gly | Thr | Ser | | |
| | | | | 85 | | | | | 90 | | | | | 95 | | | |
| Tyr | Pro | Ser | Leu | Gln | Gln | Lys | Thr | Asn | Ala | Val | Lys | Lys | Leu | His | Lys | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Cys | Asp | Glu | Cys | Gly | Lys | Ser | Phe | Lys | Tyr | Asn | Ser | Arg | Leu | Val | Gln | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| His | Lys | Ile | Met | His | Thr | Gly | Glu | Lys | Arg | Tyr | Glu | Cys | Asp | Asp | Cys | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | |
| Gly | Gly | Thr | Phe | Arg | Ser | Ser | Ser | Ser | Leu | Arg | Val | His | Lys | Arg | Ile | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | |
| His | Thr | Gly | Tyr | Gly | Glu | Lys | Thr | Thr | Arg | | | | | | | | |
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<212> DNA
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 Val Ala Lys Ala Ala Glu Glu Leu Gly Ile Pro Ala Ile Lys Ala Thr
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 Ser Val Lys Ser Gly Glu Gly His Asp Ala Val Thr Ser Leu Asp Val
 65 70 75 80
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 Leu Ala Val Pro Arg His Gly Trp Ile Asn Leu His Phe Ser Leu Leu
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35 40 45
Gln Arg Asp Thr Tyr Tyr Lys Arg Leu Glu Phe Glu Cys Gly Thr Ile
50 55 60
Thr Lys Met Gly Phe Pro Gly Tyr Phe Leu Ile Val Ala Asp Phe Ile
65 70 75 80
Asn Trp Ala Lys Asn Asn Gly Val Pro Val Gly Pro Gly Arg Gly Ser
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Gly Ala Gly Ser Leu Val Ala Tyr Ala Leu Gly Ile Thr Asp Leu Glu
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<210> 900

<211> 734

<212> PRT

<213> Homo sapiens

<400> 900

| | | | | | | | | | | | | | | | |
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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Glu | Ser | Leu | Pro | Ser | Ala | Cys | Thr | Gly | Glu | Glu | Ser | Leu | Ser | Met |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Gln | Leu | Leu | Tyr | Leu | Thr | Asn | Asn | Leu | Leu | Thr | Asp | Gln | Cys | Ile |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Pro | Val | Leu | Val | Gly | His | Leu | His | Leu | Arg | Ile | Leu | His | Leu | Ala | Asn |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asn | Gln | Leu | Gln | Thr | Phe | Pro | Ala | Ser | Lys | Leu | Asn | Lys | Leu | Glu | Gln |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Leu | Glu | Glu | Leu | Asn | Leu | Ser | Gly | Asn | Lys | Leu | Lys | Thr | Ile | Pro | Thr |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Thr | Ile | Ala | Asn | Cys | Lys | Arg | Leu | His | Thr | Leu | Val | Ala | His | Ser | Asn |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asn | Ile | Ser | Ile | Phe | Pro | Glu | Ile | Leu | Gln | Leu | Pro | Gln | Ile | Gln | Phe |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Val | Asp | Leu | Ser | Cys | Asn | Asp | Leu | Thr | Glu | Ile | Leu | Ile | Pro | Glu | Ala |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Leu | Pro | Ala | Thr | Leu | Gln | Asp | Leu | Asp | Leu | Thr | Gly | Asn | Thr | Asn | Leu |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | |
| Val | Leu | Glu | His | Lys | Thr | Leu | Asp | Ile | Phe | Ser | His | Ile | Thr | Thr | Leu |
| | | | 165 | | | | | 170 | | | | | 175 | | |
| Lys | Ile | Asp | Gln | Lys | Pro | Leu | Pro | Thr | Thr | Asp | Ser | Thr | Val | Thr | Ser |
| | | 180 | | | | | 185 | | | | | 190 | | | |
| Thr | Phe | Trp | Ser | His | Gly | Leu | Ala | Glu | Met | Ala | Gly | Gln | Arg | Asn | Lys |

| | | |
|-------------------------|-------------------------|-------------------------|
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| 210 | 215 | 220 |
| Ala Val Tyr Gly Met Phe | Asp Gly Asp Arg Asn | Glu Glu Leu Pro Arg |
| 225 | 230 | 235 |
| Leu Leu Gln Cys Thr Met | Ala Asp Val Leu Leu | Glu Glu Val Gln Gln |
| 245 | 250 | 255 |
| Ser Thr Asn Asp Thr Val | Phe Met Ala Asn Thr | Phe Leu Val Ser His |
| 260 | 265 | 270 |
| Arg Lys Leu Gly Met Ala | Gly Gln Lys Leu Gly | Ser Ser Ala Leu Leu |
| 275 | 280 | 285 |
| Cys Tyr Ile Arg Pro Asp | Thr Ala Asp Pro Ala | Ser Ser Phe Ser Leu |
| 290 | 295 | 300 |
| Thr Val Ala Asn Val Gly | Thr Cys Gln Ala Val | Leu Cys Arg Gly Gly |
| 305 | 310 | 315 |
| Lys Pro Val Pro Leu Ser | Lys Val Phe Ser Leu | Glu Gln Asp Pro Glu |
| 325 | 330 | 335 |
| Glu Ala Gln Arg Val Lys | Asp Gln Lys Ala Ile | Ile Thr Glu Asp Asn |
| 340 | 345 | 350 |
| Lys Val Asn Gly Val Thr | Cys Cys Thr Arg Met | Leu Gly Cys Thr Tyr |
| 355 | 360 | 365 |
| Leu Tyr Pro Trp Ile Leu | Pro Lys Pro His Ile | Ser Ser Thr Pro Leu |
| 370 | 375 | 380 |
| Thr Ile Gln Asp Glu Leu | Leu Ile Leu Gly Asn | Lys Ala Leu Trp Glu |
| 385 | 390 | 395 |
| His Leu Ser Tyr Thr Glu | Ala Val Asn Ala Val | Arg His Val Gln Asp |
| 405 | 410 | 415 |
| Pro Leu Ala Ala Ala Lys | Lys Leu Cys Thr Leu | Ala Gln Ser Tyr Gly |
| 420 | 425 | 430 |
| Cys Gln Asp Ser Val Gly | Ala Met Val Val Tyr | Leu Asn Ile Gly Glu |
| 435 | 440 | 445 |
| Glu Gly Cys Thr Cys Glu | Met Asn Gly Leu Thr | Leu Pro Gly Pro Val |
| 450 | 455 | 460 |
| Gly Phe Ala Ser Thr Thr | Thr Ile Lys Asp Ala | Pro Lys Pro Ala Thr |
| 465 | 470 | 475 |
| Pro Ser Ser Ser Ser Gly | Ile Ala Ser Glu Phe | Ser Ser Glu Met Ser |
| 485 | 490 | 495 |
| Thr Ser Glu Val Ser Ser | Glu Val Gly Ser Thr | Ala Ser Asp Glu His |
| 500 | 505 | 510 |
| Asn Ala Gly Gly Leu Asp | Thr Ala Leu Leu Pro | Arg Pro Glu Arg Arg |
| 515 | 520 | 525 |
| Cys Ser Leu His Pro Thr | Pro Thr Ser Gly Leu | Phe Gln Arg Gln Pro |
| 530 | 535 | 540 |
| Ser Ser Ala Thr Phe Ser | Ser Ser Asn Gln Ser | Asp Asn Gly Leu Asp Ser |
| 545 | 550 | 555 |
| Asp Asp Asp Gln Pro Val | Glu Gly Val Ile Thr | Asn Gly Ser Lys Val |
| 565 | 570 | 575 |
| Glu Val Glu Val Asp Ile | His Cys Cys Arg Gly | Arg Asp Leu Glu Asn |
| 580 | 585 | 590 |
| Ser Pro Pro Leu Ile Glu | Ser Ser Pro Thr Leu | Cys Ser Glu Glu His |
| 595 | 600 | 605 |
| Ala Arg Gly Ser Cys Phe | Gly Ile Arg Arg Gln | Asn Ser Val Asn Ser |
| 610 | 615 | 620 |
| Gly Met Leu Leu Pro Met | Ser Lys Asp Arg Met | Glu Leu Gln Lys Ser |

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|
| 625 | | | | | 630 | | | | | 635 | | | | 640 |
| Pro | Ser | Thr | Ser | Cys | Leu | Tyr | Gly | Lys | Lys | Leu | Ser | Asn | Gly | Ser Ile |
| | | | | 645 | | | | | 650 | | | | | 655 |
| Val | Pro | Leu | Glu | Asp | Ser | Leu | Asn | Leu | Ile | Glu | Val | Ala | Thr | Glu Val |
| | | | 660 | | | | | 665 | | | | | 670 | |
| Pro | Lys | Arg | Lys | Thr | Gly | Tyr | Phe | Ala | Ala | Pro | Thr | Gln | Met | Glu Pro |
| | | | 675 | | | | 680 | | | | | | 685 | |
| Glu | Asp | Gln | Phe | Val | Val | Pro | His | Asp | Leu | Glu | Glu | Glu | Val | Lys Glu |
| | | 690 | | | | 695 | | | | 700 | | | | |
| Gln | Met | Lys | Gln | His | Gln | Asp | Ser | Arg | Leu | Glu | Pro | Glu | Pro | His Glu |
| 705 | | | | | 710 | | | | | 715 | | | | 720 |
| Glu | Asp | Arg | Thr | Glu | Pro | Pro | Glu | Glu | Phe | Asp | Thr | Ala | Leu | |
| | | | | 725 | | | | | 730 | | | | | |

<210> 901

<211> 309

<212> DNA

<213> Homo sapiens

<400> 901

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tcatgatcca cctgcctcgg cctcccaaag tgctgggatt acatacagat ggcaaacttc
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atttcctttt tctcttaatg caacaagggtc atoccaaagat caggcttctc tcagtttctg
120
tggttaagtag tgatggacac ttatggagtt ttcagagact tatgcattgg gtaacaaggc
180
actgcaagag accccagata gcacagcatc atctcacatt tacaccacat cacatcaaca
240
tcgatgctag gaggtctaaa gctgatgccca ccttcagagc tgcaagtatc caaaagactc
300
cactcatga
309

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<210> 902

<211> 102

<212> PRT

<213> Homo sapiens

<400> 902

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ile | His | Leu | Pro | Arg | Pro | Pro | Lys | Val | Leu | Gly | Leu | His | Thr | Asp |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Gly | Lys | Leu | His | Phe | Leu | Phe | Leu | Leu | Met | Gln | Gln | Gly | His | Pro | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ile | Arg | Leu | Pro | Ser | Val | Ser | Val | Val | Ser | Ser | Asp | Gly | His | Leu | Trp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Phe | Gln | Arg | Leu | Met | His | Trp | Val | Thr | Arg | His | Cys | Lys | Arg | Pro |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gln | Ile | Ala | Gln | His | His | Leu | Thr | Phe | Thr | Pro | His | His | Ile | Asn | Ile |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Asp | Ala | Arg | Arg | Ser | Lys | Ala | Asp | Ala | Thr | Phe | Arg | Ala | Ala | Ser | Ile |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Gln | Lys | Thr | Pro | Leu | Met | | | | | | | | | | |
| | | | | 100 | | | | | | | | | | | |

<210> 903
 <211> 349
 <212> DNA
 <213> Homo sapiens

<400> 903
 agatcttagt gaaaactgga agcaggaaga ataagttagt catggaagcc actttggctc
 60
 taagggtctt gatggcctca tgggttgaca ggaacagaag acaaagacta gggcccaccc
 120
 aagggtgtgaa gtctaataagg aaaccttttc tccataaggc tacaatgggt ctaccaaaaa
 180
 taaaaccatg ccaccccgagg gactgcagcc caattttata tcaccatgag gtccaaaaaa
 240
 ttccaagctg tgaatttagt ttcaaatggc cttgggtctcc agtatcccta gccatgtggc
 300
 aaaaacaaac aattctcttt ggaggatata tctttatctt aagacttgn
 349

<210> 904
 <211> 102
 <212> PRT
 <213> Homo sapiens

<400> 904
 Met Glu Ala Thr Leu Ala Leu Arg Ala Leu Met Ala Ser Trp Val Asp
 1 5 10 15
 Arg Asn Arg Arg Gln Arg Leu Gly Pro Thr Gln Gly Val Lys Ser Asn
 20 25 30
 Arg Lys Pro Phe Leu His Lys Ala Thr Met Gly Leu Pro Lys Ile Lys
 35 40 45
 Pro Cys His Pro Arg Asp Cys Ser Pro Ile Leu Tyr His His Glu Val
 50 55 60
 Gln Lys Ile Pro Ser Cys Glu Phe Ser Phe Lys Trp Pro Trp Ser Pro
 65 70 75 80
 Val Ser Leu Ala Met Trp Gln Lys Gln Thr Ile Leu Phe Gly Gly Tyr
 85 90 95
 Ile Phe Ile Leu Arg Leu
 100

<210> 905
 <211> 377
 <212> DNA
 <213> Homo sapiens

<400> 905
 nntccggaac cggtggtgtg gaccgagcac gattctcacc tagctcacc ggatcagcgt
 60
 ctcaacgaag acatcattat cgcggtgac cgggcagacg cggtgattag cgtatcccag
 120
 gggctctgcg acaggctggc tggacatggc gtgacctcaa cggtgggtcc caacatcggt
 180
 gacgtcgagc tgtttgaccg tcttgatcga cgacatgagg ggacgatcgt cgtcagcgtc
 240

gccaccctca acccgggaaa gggcatgatt gagttagctc aggctgttga gcgtcttccc
 300
 gaggttcagt tgagaatcat cggagatgga ccgcagcggc accaactgga ggccattgcc
 360
 gctgataatc cacgcgt
 377

<210> 906
 <211> 125
 <212> PRT
 <213> Homo sapiens

<400> 906
 Xaa Pro Glu Pro Val Val Trp Thr Glu His Asp Ser His Leu Ala His
 1 5 10 15
 Pro Asp Gln Arg Leu Asn Glu Asp Ile Ile Ile Ala Gly Asp Arg Ala
 20 25 30
 Asp Ala Val Ile Ser Val Ser Gln Gly Leu Cys Asp Arg Leu Ala Gly
 35 40 45
 His Gly Val Thr Ser Thr Val Val Pro Asn Ile Val Asp Val Glu Leu
 50 55 60
 Phe Asp Arg Pro Asp Arg Arg His Glu Gly Thr Ile Val Val Ser Val
 65 70 75 80
 Ala Thr Leu Asn Pro Gly Lys Gly Met Ile Glu Leu Ala Gln Ala Val
 85 90 95
 Glu Arg Leu Pro Glu Val Gln Leu Arg Ile Ile Gly Asp Gly Pro Gln
 100 105 110
 Arg His Gln Leu Glu Ala Ile Ala Ala Asp Asn Pro Arg
 115 120 125

<210> 907
 <211> 332
 <212> DNA
 <213> Homo sapiens

<400> 907
 acgcgtagga tgatgaagtc cgtcactgga tcgttcttgg gtggcaaccg ggaagtcggt
 60
 gaccagttct tcaacggcga ggttcaactg aaccttgtgc cgcaggggtac attcgccgag
 120
 cgcattcgtg ccggcgctgc tggatttgca gcattcttca cgctactgg ctatggtaca
 180
 gccgtgcaga aggggtgagct tgttcttaag tatgaaaaga aggacggtaa ggctgtgcca
 240
 gtcattgacgt ccaagccgcg tgaagtgcgc tcgtttgacg gccgtgacta tataatagaa
 300
 gaggttatta aggatgaata ggatatggtg aa
 332

<210> 908
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 908

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Thr Arg Arg Met Met Lys Ser Val Thr Gly Ser Phe Leu Gly Gly Asn
 1           5           10           15
Arg Glu Val Gly Asp Gln Phe Phe Asn Gly Glu Val Gln Leu Asn Leu
      20           25           30
Val Pro Gln Gly Thr Phe Ala Glu Arg Ile Arg Ala Gly Ala Ala Gly
      35           40           45
Ile Ala Ala Phe Phe Thr Pro Thr Gly Tyr Gly Thr Ala Val Gln Lys
      50           55           60
Gly Glu Leu Val Leu Lys Tyr Glu Lys Lys Asp Gly Lys Ala Val Pro
65           70           75           80
Val Met Thr Ser Lys Pro Arg Glu Val Arg Ser Phe Asp Gly Arg Asp
      85           90           95
Tyr Ile Ile Glu Glu Val Ile Lys Asp Glu
      100           105

```

<210> 909

<211> 318

<212> DNA

<213> Homo sapiens

<400> 909

```

acgcgtcggg catggcagct gtacagatct atcgcgtcag cagggcctac gcacacatga
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tgccgcaggg gcaccgacgc tgctcgccatc aaaagagccg cctcgcgccc gcagcgcctc
120
ccagggacgg cgactcacgt ggctcgacac gcgcgcgcga gtcgcgtggg tgtgtcacgc
180
cccttttttt cccaccccaa caccgaaccg gcgggccatg gctgaggatt cgcaccccat
240
tcgctccggc ttgcgcatgc tcaagcgctc ctggagctcg aatgagaatg taccgccgcc
300
acaaagctcg ccgccggc
318

```

<210> 910

<211> 102

<212> PRT

<213> Homo sapiens

<400> 910

```

Met Ala Ala Val Gln Ile Tyr Arg Val Ser Arg Ala Tyr Ala His Met
 1           5           10           15
Met Pro Gln Gly His Arg Arg Cys Arg His Gln Lys Ser Arg Leu Ala
      20           25           30
Pro Ala Ala Pro Pro Arg Asp Gly Asp Ser Arg Gly Ser Thr Arg Ala
      35           40           45
Arg Glu Ser Arg Gly Cys Val Thr Pro Leu Phe Phe Pro Pro Gln His
      50           55           60
Arg Thr Gly Gly Pro Trp Leu Arg Ile Arg Thr Pro Phe Ala Pro Ala
65           70           75           80
Cys Ala Cys Ser Ser Ala Pro Gly Ala Arg Met Arg Met Tyr Arg Arg
      85           90           95
His Lys Ala Arg Arg Arg

```

100

<210> 911
 <211> 506
 <212> DNA
 <213> Homo sapiens

<400> 911
 acgcgtgtgc agcactctcc acaagctggc cccaatcact ttgcatcaa attggtacag
 60
 caaccttatg aggctggcct tgggggaacc ctgttttagg gatgagctga acttaccggg
 120
 aggctgcatg cgaggttggt gtgaaatgca tatctggctt tgtagctggt cggtcacct
 180
 ctggggttgg cacaggggag ggggttctgc catggctaga atgcgctaag ggggtgaaac
 240
 gaagcctgct gggcccgga accacagagc agcctggcct ttgaaggaga ccctgtggca
 300
 cccctgccc accccaagt ccagccattt cacttccttg gagatggtgc aaagcaagaa
 360
 aaaaaaaaa atccagtgtt ctccaggtcag cctccacca gccaggattc atcgtctgat
 420
 ctgtttgggg agagagcatg gagtggtgga gatgggttgg gcccagtggt tttctgatta
 480
 actcgagtt cacctgaaac attttg
 506

<210> 912
 <211> 129
 <212> PRT
 <213> Homo sapiens

<400> 912
 Met Phe Gln Val Asn Cys Glu Leu Ile Arg Lys His Trp Gly Pro Thr
 1 5 10 15
 His Leu His His Ser Met Leu Ser Pro Gln Thr Asp Gln Thr Met Asn
 20 25 30
 Pro Gly Trp Trp Lys Ala Asp Leu Arg Thr Leu Asp Phe Phe Phe
 35 40 45
 Leu Ala Leu His His Leu Gln Gly Ser Glu Met Ala Gly Leu Gly Gly
 50 55 60
 Gly Gln Gly Val Pro Gln Gly Leu Leu Gln Arg Pro Gly Cys Ser Val
 65 70 75 80
 Val Pro Gly Pro Ser Arg Leu Arg Phe His Pro Leu Ala His Ser Ser
 85 90 95
 His Gly Arg Thr Pro Ala Pro Val Pro Thr Pro Glu Val Ser Arg Pro
 100 105 110
 Ala Thr Lys Pro Asp Met His Phe Thr Pro Thr Ser His Ala Ala Ser
 115 120 125
 Arg

<210> 913
 <211> 339

<212> DNA

<213> Homo sapiens

<400> 913

cgcttcatgg cgtgggttcag gcgtacgggt ccggctactg gtgactaccg tggcacgaaa
 60
 tttttcgttc gcgagaacgg taaaaccttc gcaacctcga tgttcatggg ttgtgtcgcc
 120
 ctgggcgcca cggacctgct tttcgccctc gactcgattc cggcgctcta tggtttcacc
 180
 aacgaggggt acctatcct taccgctaac gtctttgctc tcatgggctt gcgtcagttg
 240
 tatttcctta ttggaagcct gttggaacgt ctgggtgtact tgctgctggg actgggtcgtg
 300
 attttgggct ttatcgccct caagctcatt ggccacgcg
 339

<210> 914

<211> 113

<212> PRT

<213> Homo sapiens

<400> 914

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Phe | Met | Ala | Trp | Phe | Arg | Arg | Thr | Val | Pro | Ala | Thr | Gly | Asp | Tyr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Gly | Thr | Lys | Phe | Phe | Val | Arg | Glu | Asn | Gly | Lys | Thr | Leu | Ala | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Met | Phe | Met | Val | Cys | Val | Ala | Leu | Gly | Ala | Thr | Asp | Leu | Leu | Phe |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Leu | Asp | Ser | Ile | Pro | Ala | Ser | Tyr | Gly | Phe | Thr | Asn | Glu | Gly | Tyr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Ile | Leu | Thr | Ala | Asn | Val | Phe | Ala | Leu | Met | Gly | Leu | Arg | Gln | Leu |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Tyr | Phe | Leu | Ile | Gly | Ser | Leu | Leu | Glu | Arg | Leu | Val | Tyr | Leu | Ser | Leu |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Gly | Leu | Val | Val | Ile | Leu | Gly | Phe | Ile | Ala | Leu | Lys | Leu | Ile | Gly | His |
| | | 100 | | | | | 105 | | | | | | 110 | | |

Ala

<210> 915

<211> 663

<212> DNA

<213> Homo sapiens

<400> 915

nnggtacctg tcaatcagta tgtaaacctc actttatgtc gtgggttatcc acttctgat
 60
 gacagtgaag atcctgttgt ggacattggt gctgctaccc ctgtcatcaa tggacagtca
 120
 ttaaccaagg gagagacttg catgaatcct caggatttta agccaggagc aatgggtctg
 180
 gagcagaatg gaaaatcggg acacactttg actgggtgatg gtctcaatgg accatcagat
 240

gcaagtgagc agagagtatc catggcatcg tcaggcagct cccagcctga actagtgact
 300
 atccctttga ttaagggccc taaagggttt gggtttgcaa ttgctgacag ccctactgga
 360
 cagaaggtga aaatgatact ggatagtcag tgggtgtcaag gccttcagaa aggagatata
 420
 attaaggaaa tataccatca aaatgtgcag aatttaacac atctccaagt ggtagagggtg
 480
 ctaaagcagt ttccagtagg tgctgatgta ccattgctta tcttaagagg aggtccccct
 540
 tcaccaacca aaagtgccaa aatgaaaaca gataaaaagg aaaatgcagg aagtttggag
 600
 gccataaatg agcctattcc tcagcctatg ccttttccac cgagcattat caggtcagga
 660
 tcc
 663

<210> 916

<211> 221

<212> PRT

<213> Homo sapiens

<400> 916

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Val | Pro | Val | Asn | Gln | Tyr | Val | Asn | Leu | Thr | Leu | Cys | Arg | Gly | Tyr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Pro | Leu | Pro | Asp | Asp | Ser | Glu | Asp | Pro | Val | Val | Asp | Ile | Val | Ala | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Pro | Val | Ile | Asn | Gly | Gln | Ser | Leu | Thr | Lys | Gly | Glu | Thr | Cys | Met |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Asn | Pro | Gln | Asp | Phe | Lys | Pro | Gly | Ala | Met | Val | Leu | Glu | Gln | Asn | Gly |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Lys | Ser | Gly | His | Thr | Leu | Thr | Gly | Asp | Gly | Leu | Asn | Gly | Pro | Ser | Asp |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Ala | Ser | Glu | Gln | Arg | Val | Ser | Met | Ala | Ser | Ser | Gly | Ser | Ser | Gln | Pro |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Glu | Leu | Val | Thr | Ile | Pro | Leu | Ile | Lys | Gly | Pro | Lys | Gly | Phe | Gly | Phe |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Ala | Ile | Ala | Asp | Ser | Pro | Thr | Gly | Gln | Lys | Val | Lys | Met | Ile | Leu | Asp |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ser | Gln | Trp | Cys | Gln | Gly | Leu | Gln | Lys | Gly | Asp | Ile | Ile | Lys | Glu | Ile |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Tyr | His | Gln | Asn | Val | Gln | Asn | Leu | Thr | His | Leu | Gln | Val | Val | Glu | Val |
| 145 | | | | 150 | | | | | | 155 | | | | 160 | |
| Leu | Lys | Gln | Phe | Pro | Val | Gly | Ala | Asp | Val | Pro | Leu | Leu | Ile | Leu | Arg |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Gly | Gly | Pro | Pro | Ser | Pro | Thr | Lys | Ser | Ala | Lys | Met | Lys | Thr | Asp | Lys |
| | | 180 | | | | | 185 | | | | | 190 | | | |
| Lys | Glu | Asn | Ala | Gly | Ser | Leu | Glu | Ala | Ile | Asn | Glu | Pro | Ile | Pro | Gln |
| | 195 | | | | | 200 | | | | | | 205 | | | |
| Pro | Met | Pro | Phe | Pro | Pro | Ser | Ile | Ile | Arg | Ser | Gly | Ser | | | |
| | 210 | | | | | 215 | | | | | 220 | | | | |

<210> 917

<211> 615

<212> DNA

<213> Homo sapiens

<400> 917

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atcgtggacc agaagttccc tgagtgtggc ttctacggcc tttacgacaa gatcctgctt
60
ttcaaacatg accccacgtc ggccaacctc ctgcagctgg tgcgctcgtc cggagacatc
120
caggagggcg acctggtgga ggtggtgctg tcggcctcgg ccaccttcga ggacttccag
180
atccgcccgc acgcccctcac ggtgcactcc tategggcgc ctgccttctg tgatcactgc
240
ggggagatgc tcttcggcct agtgcgccag ggcctcaagt gcgatggctg cgggctgaac
300
taccacaagc gctgtgcctt cagcatcccc aacaactgta gtggggcccg caaacggcgc
360
ctgtcatcca cgtctctggc cagtggccac tcggtgcgcc tcggcacctc cgagtccttg
420
ccctgcacgg ctgaagagga gccgtagcac caccgaactc ctgcctcgcc gtccccgtca
480
tcctcttctt cctcttctgc ctcatcgat acggggccgc ccattgagct ggacaagatg
540
ctgctctcca aggtcaaggt gccgcacacc ttctcatcc acagctatac acggcccacc
600
gtttgccagg cttgc
615

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<210> 918

<211> 148

<212> PRT

<213> Homo sapiens

<400> 918

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Ile Val Asp Gln Lys Phe Pro Glu Cys Gly Phe Tyr Gly Leu Tyr Asp
1           5           10           15
Lys Ile Leu Leu Phe Lys His Asp Pro Thr Ser Ala Asn Leu Leu Gln
20           25           30
Leu Val Arg Ser Ser Gly Asp Ile Gln Glu Gly Asp Leu Val Glu Val
35           40           45
Val Leu Ser Ala Ser Ala Thr Phe Glu Asp Phe Gln Ile Arg Pro His
50           55           60
Ala Leu Thr Val His Ser Tyr Arg Ala Pro Ala Phe Cys Asp His Cys
65           70           75           80
Gly Glu Met Leu Phe Gly Leu Val Arg Gln Gly Leu Lys Cys Asp Gly
85           90           95
Cys Gly Leu Asn Tyr His Lys Arg Cys Ala Phe Ser Ile Pro Asn Asn
100          105          110
Cys Ser Gly Ala Arg Lys Arg Arg Leu Ser Ser Thr Ser Leu Ala Ser
115          120          125
Gly His Ser Val Arg Leu Gly Thr Ser Glu Ser Leu Pro Cys Thr Ala
130          135          140
Glu Glu Glu Pro
145

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<210> 919
 <211> 294
 <212> DNA
 <213> Homo sapiens

<400> 919
 accggtatgc gtccgctggc tgtgctcggc gacaacatca ccaccgacca tctatcgccg
 60
 acaaatgcga tcctgctcga tagcgcagcg ggtgagtacc tcgccaagat gggcccgcg
 120
 gaagaagact tcatttcgaa cgcgacccat cgtggcgatc acctgaccgc acagcgcgcc
 180
 accttcgcca acccgacctt gctcaacgag atggccgtag tcgatggtga agtgaagaaa
 240
 ggctcgcttg cccgcgtgga accggaaggc catgtgatgc gcatgtggga agcc
 294

<210> 920
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 920
 Thr Gly Met Arg Pro Leu Ala Val Leu Gly Asp Asn Ile Thr Thr Asp
 1 5 10 15
 His Leu Ser Pro Thr Asn Ala Ile Leu Leu Asp Ser Ala Ala Gly Glu
 20 25 30
 Tyr Leu Ala Lys Met Gly Pro Pro Glu Glu Asp Phe Ile Ser Asn Ala
 35 40 45
 Thr His Arg Gly Asp His Leu Thr Ala Gln Arg Ala Thr Phe Ala Asn
 50 55 60
 Pro Thr Leu Leu Asn Glu Met Ala Val Val Asp Gly Glu Val Lys Lys
 65 70 75 80
 Gly Ser Leu Ala Arg Val Glu Pro Glu Gly His Val Met Arg Met Trp
 85 90 95
 Glu Ala

<210> 921
 <211> 378
 <212> DNA
 <213> Homo sapiens

<400> 921
 acgcgtttgc gcatcgcttt gaccggctctg acgatggctg agtacttccg cgatgttcag
 60
 aaccaggacg tgctgttggt catcgacaac atcttccggt tctcccaggc tggttctgag
 120
 gtttcaaccc tgctaggtcg tatgccctcg gcgggtgggt accagcccaa cttggccgac
 180
 gagatgggccc aattgcagga gcgaatcacc tcgaccctg gtcactccat cacctcgatg
 240
 caggccgtct acgtccccgc tgacgattac accgaccggt ctccggcgac gaccttcgcc
 300

cacctggatg ccaccacgga gctttctcgt gagattgcct ctcgtggcct gtacccggcc
 360
 gtggatccgc tggcgtcg
 378

<210> 922
 <211> 126
 <212> PRT
 <213> Homo sapiens

<400> 922
 Thr Arg Leu Arg Ile Ala Leu Thr Gly Leu Thr Met Ala Glu Tyr Phe
 1 5 10 15
 Arg Asp Val Gln Asn Gln Asp Val Leu Leu Phe Ile Asp Asn Ile Phe
 20 25 30
 Arg Phe Ser Gln Ala Gly Ser Glu Val Ser Thr Leu Leu Gly Arg Met
 35 40 45
 Pro Ser Ala Val Gly Tyr Gln Pro Asn Leu Ala Asp Glu Met Gly Gln
 50 55 60
 Leu Gln Glu Arg Ile Thr Ser Thr Arg Gly His Ser Ile Thr Ser Met
 65 70 75 80
 Gln Ala Val Tyr Val Pro Ala Asp Asp Tyr Thr Asp Pro Ala Pro Ala
 85 90 95
 Thr Thr Phe Ala His Leu Asp Ala Thr Thr Glu Leu Ser Arg Glu Ile
 100 105 110
 Ala Ser Arg Gly Leu Tyr Pro Ala Val Asp Pro Leu Ala Ser
 115 120 125

<210> 923
 <211> 571
 <212> DNA
 <213> Homo sapiens

<400> 923
 accggtatcg aactgccgca agacacgggc aagcatgtcg ccgacgaaca actgcaacgc
 60
 ctggacaccg cgctggagca cgtgcgcgga gaaatccgca ttaccctgga gcatgcacgc
 120
 caacgcaaga atgtcgaaga agaagacatc ttcgccgccc accttgcgct attggaagac
 180
 cccacgctgc tggacgccgc cactggtgcc atcgaacacg gcagcgccgc caccacgcc
 240
 tggcgcgatg caatccaggc gcaatgcgcc gtgttgctgg ccctgggcaa accgctgttt
 300
 gccgagcgcg ccaacgacct gcgcgatctg caacagcgag tactgcgtgc gctgttgggg
 360
 gaagcctggc acttcgaatt gccggccggg ccgattttca ggnnggcat taacttacc
 420
 ccttccgct tgttgcaact gagtgcccaa aacgccgtgg gtatttgcac ggccgaaggc
 480
 ggcgctacgt ctcacgtcgc gattttggcc cgaggcaaag gcttgccgtg cgtggtcgcg
 540
 ctgggcgccc aagtgtcga cgtgccccaa g
 571

<210> 924
 <211> 190
 <212> PRT
 <213> Homo sapiens

<400> 924
 Thr Gly Ile Glu Leu Pro Gln Asp Thr Gly Lys His Val Ala Asp Glu
 1 5 10 15
 Gln Leu Gln Arg Leu Asp Thr Ala Leu Glu His Val Arg Gly Glu Ile
 20 25 30
 Arg Ile Thr Leu Glu His Ala Arg Gln Arg Lys Asn Val Glu Glu Glu
 35 40 45
 Asp Ile Phe Ala Ala His Leu Ala Leu Leu Glu Asp Pro Thr Leu Leu
 50 55 60
 Asp Ala Ala Thr Gly Ala Ile Glu His Gly Ser Ala Ala Thr His Ala
 65 70 75 80
 Trp Arg Asp Ala Ile Gln Ala Gln Cys Ala Val Leu Leu Ala Leu Gly
 85 90 95
 Lys Pro Leu Phe Ala Glu Arg Ala Asn Asp Leu Arg Asp Leu Gln Gln
 100 105 110
 Arg Val Leu Arg Ala Leu Leu Gly Glu Ala Trp His Phe Glu Leu Pro
 115 120 125
 Ala Gly Pro Ile Phe Arg Xaa Ala Ile Asn Leu Pro Pro Ser Ala Leu
 130 135 140
 Leu Gln Leu Ser Ala Gln Asn Ala Val Gly Ile Cys Met Ala Glu Gly
 145 150 155 160
 Gly Ala Thr Ser His Val Ala Ile Leu Ala Arg Gly Lys Gly Leu Pro
 165 170 175
 Cys Val Val Ala Leu Gly Ala Glu Val Leu Asp Val Pro Gln
 180 185 190

<210> 925
 <211> 620
 <212> DNA
 <213> Homo sapiens

<400> 925
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 120
 gtggtgtgtg tgcattggtg gtgcacgtgt gcactgtgtg tgtgtgtatg catgtgtgtg
 180
 cacgtgtgcc tgtgtgtatg catggtaatg tgcgtgtgca ctgtgtggtg tgtatgcatg
 240
 tgtgtgcacg tgtgcactgt gtatgcatag tgtgtgcacg tgtgcactgt gtgtggatgc
 300
 atggtaatgt gcacgtgtgc actgtgtgtg gtgtgtatga tgggtgtgtgc acgtgtgcac
 360
 ggtgtgtggt gtgtatgcat gtgtgtgcac gtgtgcactg tgtggcaggg gtgtttggtg
 420
 tgtgtgcatg tatgcatggt gtgtgcatac gtgtgcagca gcacctgggt ccatctccag
 480

tgcccagcag catcacacgc actttgggtgc ttataaatg catggtcagt gaggtgccca
 540
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 600
 aggaaacatt tttaaaattt
 620

<210> 926
 <211> 89
 <212> PRT
 <213> Homo sapiens

<400> 926
 Thr Arg Ala Leu Cys Val Cys Met Val Thr Tyr Thr Cys Ala Leu Cys
 1 5 10 15
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 20 25 30
 Val Met Cys Thr Cys Ala Leu Cys Val Val Cys Met His Gly Val Cys
 35 40 45
 Thr Cys Ala Leu Cys Val Cys Val Cys Met Cys Val His Val Cys Leu
 50 55 60
 Cys Val Cys Met Val Met Cys Val Cys Thr Val Trp Cys Val Cys Met
 65 70 75 80
 Cys Val His Val Cys Thr Val Tyr Ala
 85

<210> 927
 <211> 360
 <212> DNA
 <213> Homo sapiens

<400> 927
 gtgcacactc tggaagccac aggatggagc tcttagagat agtgaggcat gaccagaggg
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 aagaggcatt tggggctctg ttcagatcat tccaacagca aaccgggcat ggagacccca
 120
 tctcaggtct gtgcttctct gggggccacc cagccatcct gcccaccagc tcagaggcag
 180
 ggacaaagcc ctcccaagag gcagcaggca gcaagggtca gccagcgagc tggggacagg
 240
 caggtacaac ctggaaaccc caaaggaccc cagatggcaa tgtgacacgg cccatccacc
 300
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 360

<210> 928
 <211> 111
 <212> PRT
 <213> Homo sapiens

<400> 928
 Met Glu Leu Leu Glu Ile Val Arg His Asp Gln Arg Glu Glu Ala Phe
 1 5 10 15
 Gly Val Leu Phe Arg Ser Phe Gln Gln Gln Thr Gly His Gly Asp Pro

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 20 | | 25 | | 30 | | | | | | | | | | |
| Ile | Ser | Gly | Leu | Cys | Phe | Ser | Gly | Gly | His | Pro | Ala | Ile | Leu | Pro | Thr |
| | 35 | | 40 | | 45 | | | | | | | | | | |
| Ser | Ser | Glu | Ala | Gly | Thr | Lys | Pro | Ser | Gln | Glu | Ala | Ala | Gly | Ser | Lys |
| | 50 | | 55 | | 60 | | | | | | | | | | |
| Gly | Gln | Pro | Ala | Gln | Trp | Gly | Gln | Ala | Gly | Thr | Thr | Trp | Lys | Pro | Gln |
| 65 | | | 70 | | 75 | | | | | | | | | 80 | |
| Arg | Thr | Pro | Asp | Gly | Asn | Val | Thr | Arg | Pro | Ile | His | Gln | Ala | Pro | Val |
| | | | 85 | | 90 | | | | | | | | | 95 | |
| Met | Pro | Ala | Ser | His | Arg | Gly | Glu | Pro | Asp | Pro | Gly | Thr | Ile | Leu | |
| | | | 100 | | 105 | | | | | | | | | 110 | |

<210> 929

<211> 2340

<212> DNA

<213> Homo sapiens

<400> 929

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nnctccccag ggccgagtct tccggagtca gcagagagcc tggatggatc acaggaggat
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120
aacaacagcc ggctcaaggc caagggcgtg ggccagcacg acaacgcca gaactttggg
180
aaccagagct ttgaggagct gcgagcagcc tgtctaagaa agggggagct cttcgaggac
240
cccttattcc ctgctgaacc cagctcactg ggcttcaagg acctgggccc caactccaaa
300
aatgtgcaga acatctcctg gcagcggccc aaggatatca taaacaacc tctattcatc
360
atggatggga tttctccaac agacatctgc caggggatcc tcggggactg ctggctgctg
420
gctgccatcg gctcccttac cacctgcccc aaactgctat accgcgtggg gccagagga
480
cagagcttca agaaaaacta tgctggcatc ttccattttc agatttggca gtttggacag
540
tggttgaacg tggtggtaga tgaccggctg ccacaaaaga atgacaagct ggtgtttgtg
600
cactcaaccg aacgcagtga gttctggagt gccctgctgg agaaggcgta tgccaagctg
660
agtgggtcct atgaagcatt gtcagggggc agtaccatgg agggccttga ggacttcaca
720
ggaggcgtgg ccagagctt ccaactccag agggcccctc agaacctgct caggctcctt
780
aggaaggccg tggagcgatc ctccctcatg ggttgctcca ttgaagtcac cagtgatagt
840
gaactggaat ccatgactga caagatgctg gtgagagggc acgcttactc tgtgactggc
900
cttcaggatg tccactacag aggcaaaatg gaaacactga ttcgggtccg gaatccctgg
960
ggccggattg agtggaatgg agcttggagt gacagtgccg gggagtggga agaggtggcc
1020
tcagacatcc agatgcagct gctgcacaag acggaggacg gggagtctct gatgtcctac
1080

```

caagattttcc tgaacaactt cacgctcctg gagatctgca acctcacgcc tgatacactc
 1140
 tctggggact acaagagcta ctggcacacc accttctacg agggcagctg gcgcagagggc
 1200
 agtcccgcag ggggctgcag gaaccaccct ggcacgttct ggaccaaccc ccagtttaag
 1260
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 1320
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 1380
 ctgcagacca ttggctttgt cctctacgcg gtcccaaaag agtttcagaa cattcaggat
 1440
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 1500
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 1560
 ccctccacct ttgagccaca cagagatgct gacttcctgc ttcgggtctt caccgagaag
 1620
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 1680
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 1740
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 1800
 aaaagcttca agaccaaggg ctttggcctg gatgcttgcc gctgcatgat caacctcatg
 1860
 gataaagatg gctctggcaa gctggggctt ctagagttca agatcctgtg gaaaaaactc
 1920
 aagaaatgga tggacatctt cagagagtgt gaccaggacc attcaggcac cttgaactcc
 1980
 tatgagatgc gcttggttat tgagaaagca ggcataaagc tgaacaacaa ggtaatgcag
 2040
 gtcctggtgg ccaggatatgc agatgatggc ctgatcatag actttgacag cttcatcagc
 2100
 tgtttcctga ggctaaagac catgttcaca ttctttctaa ccatggaccc caagaatact
 2160
 ggccatattt gcttgagcct ggaacagtgg ctgcagatga ccatgtgggg atagaggcgc
 2220
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 2280
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 2340

<210> 930

<211> 702

<212> PRT

<213> Homo sapiens

<400> 930

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Val | Ala | His | Ile | Asn | Asn | Ser | Arg | Leu | Lys | Ala | Lys | Gly | Val | Gly |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Gln | His | Asp | Asn | Ala | Gln | Asn | Phe | Gly | Asn | Gln | Ser | Phe | Glu | Glu | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Ala | Ala | Cys | Leu | Arg | Lys | Gly | Glu | Leu | Phe | Glu | Asp | Pro | Leu | Phe |

| | | | | | |
|-----|-----|-----|-----|-----|-----|
| 35 | 40 | 45 | | | |
| Pro | Ala | Glu | Pro | Ser | Ser |
| 50 | 55 | 60 | Leu | Gly | Phe |
| Lys | Asn | Val | Gln | Asn | Ile |
| 65 | 70 | 75 | Ser | Trp | Gln |
| Asn | Pro | Leu | Phe | Ile | Met |
| 85 | 90 | 95 | Asp | Gly | Ile |
| Gly | Ile | Leu | Gly | Asp | Cys |
| 100 | 105 | 110 | Trp | Leu | Leu |
| Thr | Cys | Pro | Lys | Leu | Leu |
| 115 | 120 | 125 | Tyr | Arg | Val |
| Lys | Lys | Asn | Tyr | Ala | Gly |
| 130 | 135 | 140 | Ile | Phe | His |
| Gln | Trp | Val | Asn | Val | Val |
| 145 | 150 | 155 | Val | Asp | Asp |
| Lys | Leu | Val | Phe | Val | His |
| 165 | 170 | 175 | Ser | Thr | Glu |
| Leu | Leu | Glu | Lys | Ala | Tyr |
| 180 | 185 | 190 | Ala | Lys | Leu |
| Ser | Gly | Gly | Ser | Thr | Met |
| 195 | 200 | 205 | Glu | Gly | Leu |
| Ala | Gln | Ser | Phe | Gln | Leu |
| 210 | 215 | 220 | Gln | Arg | Pro |
| Leu | Arg | Lys | Ala | Val | Glu |
| 225 | 230 | 235 | Arg | Ser | Ser |
| Val | Thr | Ser | Asp | Ser | Glu |
| 245 | 250 | 255 | Leu | Glu | Ser |
| Arg | Gly | His | Ala | Tyr | Ser |
| 260 | 265 | 270 | Val | Thr | Gly |
| Gly | Lys | Met | Glu | Thr | Leu |
| 275 | 280 | 285 | Ile | Arg | Val |
| Glu | Trp | Asn | Gly | Ala | Trp |
| 290 | 295 | 300 | Ser | Asp | Ser |
| Ala | Ser | Asp | Ile | Gln | Met |
| 305 | 310 | 315 | Gln | Leu | Leu |
| Phe | Trp | Met | Ser | Tyr | Gln |
| 325 | 330 | 335 | Asp | Phe | Leu |
| Ile | Cys | Asn | Leu | Thr | Pro |
| 340 | 345 | 350 | Asp | Thr | Leu |
| Trp | His | Thr | Thr | Phe | Tyr |
| 355 | 360 | 365 | Glu | Gly | Ser |
| Gly | Gly | Cys | Arg | Asn | His |
| 370 | 375 | 380 | Pro | Gly | Thr |
| Lys | Ile | Ser | Leu | Pro | Glu |
| 385 | 390 | 395 | Gly | Asp | Asp |
| Asn | Val | Val | Val | Cys | Thr |
| 405 | 410 | 415 | Cys | Leu | Val |
| Arg | His | Ala | Arg | Gln | Gln |
| 420 | 425 | 430 | Gly | Ala | Gln |
| Leu | Tyr | Ala | Val | Pro | Lys |
| 435 | 440 | 445 | Glu | Phe | Gln |
| Lys | Lys | Glu | Phe | Phe | Thr |
| 450 | 455 | 460 | Lys | Tyr | Gln |
| Phe | Thr | Asn | Ser | Arg | Glu |
| | | | Val | Ser | Ser |
| | | | Gln | Leu | Arg |
| | | | Leu | Pro | Pro |
| | | | Gly | | |

465 470 475 480
 Glu Tyr Ile Ile Ile Pro Ser Thr Phe Glu Pro His Arg Asp Ala Asp
 485 490 495
 Phe Leu Leu Arg Val Phe Thr Glu Lys His Ser Glu Ser Trp Glu Leu
 500 505 510
 Asp Glu Val Asn Tyr Ala Glu Gln Leu Gln Glu Glu Lys Val Ser Glu
 515 520 525
 Asp Asp Met Asp Gln Asp Phe Leu His Leu Phe Lys Ile Val Ala Gly
 530 535 540
 Glu Gly Lys Glu Ile Gly Val Tyr Glu Leu Gln Arg Leu Leu Asn Arg
 545 550 555 560
 Met Ala Ile Lys Phe Lys Ser Phe Lys Thr Lys Gly Phe Gly Leu Asp
 565 570 575
 Ala Cys Arg Cys Met Ile Asn Leu Met Asp Lys Asp Gly Ser Gly Lys
 580 585 590
 Leu Gly Leu Leu Glu Phe Lys Ile Leu Trp Lys Lys Leu Lys Lys Trp
 595 600 605
 Met Asp Ile Phe Arg Glu Cys Asp Gln Asp His Ser Gly Thr Leu Asn
 610 615 620
 Ser Tyr Glu Met Arg Leu Val Ile Glu Lys Ala Gly Ile Lys Leu Asn
 625 630 635 640
 Asn Lys Val Met Gln Val Leu Val Ala Arg Tyr Ala Asp Asp Gly Leu
 645 650 655
 Ile Ile Asp Phe Asp Ser Phe Ile Ser Cys Phe Leu Arg Leu Lys Thr
 660 665 670
 Met Phe Thr Phe Phe Leu Thr Met Asp Pro Lys Asn Thr Gly His Ile
 675 680 685
 Cys Leu Ser Leu Glu Gln Trp Leu Gln Met Thr Met Trp Gly
 690 695 700

<210> 931
 <211> 297
 <212> DNA
 <213> Homo sapiens

<400> 931
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 acgaccgatc acaagacccg ctggtacgcc gagaagcagt acgccgagct cgtgggtgag
 120
 gatgtcaaga tccgagagtg gctccacaag aatctggagc gcgccggtct ttcgtccatc
 180
 gagatcgagc gtcgctccga gcgcgtgacc attttccctt acgccgctcg cccgggcatc
 240
 gttatcgggc gcaatggccg ggaggccgag cgcgtgcgtn ntgagctcga aaagctt
 297

<210> 932
 <211> 93
 <212> PRT
 <213> Homo sapiens

<400> 932
 Met Gly Gln Lys Ile Asn Pro His Gly Phe Arg Leu Gly Val Thr Thr

```

1           5           10           15
Asp His Lys Thr Arg Trp Tyr Ala Glu Lys Gln Tyr Ala Glu Leu Val
                20           25           30
Gly Glu Asp Val Lys Ile Arg Glu Trp Leu His Lys Asn Leu Glu Arg
                35           40           45
Ala Gly Leu Ser Ser Ile Glu Ile Glu Arg Arg Ser Glu Arg Val Thr
                50           55           60
Ile Phe Leu Tyr Ala Ala Arg Pro Gly Ile Val Ile Gly Arg Asn Gly
65           70           75           80
Arg Glu Ala Glu Arg Val Arg Xaa Glu Leu Glu Lys Leu
                85           90

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<210> 933

<211> 305

<212> DNA

<213> Homo sapiens

<400> 933

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tccgccgatc cggcaagcca agccaatgcc gtgcaggatc tggcgggggc aggcacgcac
120
gcgctggcca tctcgccgac cgaccgggat cagctggttt cggcgatcca gcaggtcaag
180
gacgacggca agttcgtggc gctggtcgac cgtgcgcctt ccgtcaacga caacacgatc
240
cgcgatctct acgtggccgg caacaacccg gcgctcggcg aagtggcggg caaattcatg
300
ggcga
305

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<210> 934

<211> 101

<212> PRT

<213> Homo sapiens

<400> 934

```

Xaa Arg Val Ala Lys Leu Leu Met Ala Glu Tyr Lys Gly Leu Asn Val
1           5           10           15
Ile Val Lys Thr Ser Ala Asp Pro Ala Ser Gln Ala Asn Ala Val Gln
                20           25           30
Asp Leu Ala Gly Ala Gly Ile Asp Ala Leu Ala Ile Leu Pro Thr Asp
                35           40           45
Pro Asp Gln Leu Val Ser Ala Ile Gln Gln Val Lys Asp Asp Gly Lys
                50           55           60
Phe Val Ala Leu Val Asp Arg Ala Pro Ser Val Asn Asp Asn Thr Ile
65           70           75           80
Arg Asp Leu Tyr Val Ala Gly Asn Asn Pro Ala Leu Gly Glu Val Ala
                85           90           95
Gly Lys Phe Met Gly
                100

```

<210> 935

<211> 333

<212> DNA

<213> Homo sapiens

<400> 935

acgcgtgaag ggctgatgag tgctatgaaa aagccagggg cccgaggaca ctgggggtgga
60
caggctcccc tggggaagtc ctcttagaac tgagggatca acactggagg agactgcaag
120
gggtacggga taaatgttcc tgggtgaagga aacagcaggg gcaaaggccc tgcagcagaa
180
aggagcggagg ccctttggag taacagaaaag accatgggtga caggagctca gaaagaccac
240
tgggtgttaag actataagcc agtggaggcc agattgggga atgggatggg aggggtgctt
300
gaagaccatg gtgaggctct cttggtcttt act
333

<210> 936

<211> 103

<212> PRT

<213> Homo sapiens

<400> 936

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Val | Phe | Lys | His | Pro | Ser | His | Pro | Ile | Pro | Gln | Ser | Gly | Leu | His |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Trp | Leu | Ile | Val | Leu | Thr | Pro | Val | Val | Phe | Leu | Ser | Ser | Cys | His | His |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Leu | Ser | Val | Thr | Pro | Lys | Gly | Leu | Ala | Pro | Phe | Cys | Cys | Arg | Ala |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Phe | Ala | Pro | Ala | Val | Ser | Phe | Thr | Arg | Asn | Ile | Tyr | Pro | Val | Pro | Leu |
| | | | 50 | | | | 55 | | | | 60 | | | | |
| Ala | Val | Ser | Ser | Ser | Val | Asp | Pro | Ser | Val | Leu | Arg | Gly | Leu | Pro | Gln |
| | | | | | 70 | | | | | 75 | | | | | 80 |
| Gly | Ser | Leu | Ser | Thr | Pro | Val | Ser | Ser | Gly | Pro | Trp | Leu | Phe | His | Ser |
| | | | | | 85 | | | | 90 | | | | | 95 | |
| Thr | His | Gln | Pro | Phe | Thr | Arg | | | | | | | | | |
| | | | | | | | | | | | | | | | 100 |

<210> 937

<211> 464

<212> DNA

<213> Homo sapiens

<400> 937

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ccggcggacg acgagctcaa ggatctgttg acggccgacc tcatggacca gcacaacctc
120
gaccgtgccc tggcaggggt gcgtgccagt cacgtcatcg acgaagctcg cgccgaggtg
180
cagcggcgtg ccgatctcgc ccgtggccat ctgcgccatcc ttcccgcagg cgatgcccg
240
acggcgttgg agaccctgtg cgacgaggtg ggttcccggg cggcctgaac cccgaccctg
300

ccagnctgcg tcccatctcc tggccgggac cgctccagcg tctgtctctc gacagctcat
 360
 cgttcttccg acaccaagga gtttctcgtg gcccgatc tcgatctcat cggcattggg
 420
 cccggcaacc cggactggat caccctggct gccgtcaagg ccan
 464

<210> 938
 <211> 95
 <212> PRT
 <213> Homo sapiens

<400> 938
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 1 5 10 15
 Ala Ser Thr Asp Pro Ala Asp Asp Glu Leu Lys Asp Leu Leu Thr Ala
 20 25 30
 Asp Leu Met Asp Gln His Asn Leu Asp Arg Ala Leu Ala Gly Leu Arg
 35 40 45
 Ala Ser His Val Ile Asp Glu Ala Arg Ala Glu Val Gln Arg Arg Ala
 50 55 60
 Asp Leu Ala Arg Gly His Leu Ala Ile Leu Pro Ala Gly Asp Ala Arg
 65 70 75 80
 Thr Ala Leu Glu Thr Leu Cys Asp Glu Val Gly Ser Arg Ala Ala
 85 90 95

<210> 939
 <211> 385
 <212> DNA
 <213> Homo sapiens

<400> 939
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 ggactgctgc cggtcgaggt ggacttcgcc gccacgaaga cccttgccctt gtcgcacggg
 120
 acatggcggg ggatcgaggt tgggtggctat gaaatccatc acgggcgtct gtcgttcgct
 180
 gaggacgctg aagccttcct cgacggcgta cacgtcggtc cggtatgggg gacgatgtgg
 240
 cacggggcat tcgagcacga cgaattccgt cgcacgtggc tggctgacgc ggcccgtcac
 300
 gctggatcat cctggcgctc gcaactccgac gagctggggt atcaggctcg acgcgaggcg
 360
 atgatcga aa ccctcgccga cgcgt
 385

<210> 940
 <211> 128
 <212> PRT
 <213> Homo sapiens

<400> 940
 Xaa Thr Ile Leu Asp Pro Asp Gly Gln Glu Thr Thr Pro Gly Ser Val

```

      1             5             10             15
Ile Glu Gly Leu Gly Leu Leu Pro Val Glu Val Asp Phe Ala Ala Thr
      20             25             30
Lys Thr Leu Ala Leu Ser His Gly Thr Trp Arg Gly Ile Glu Val Gly
      35             40             45
Gly Tyr Glu Ile His His Gly Arg Leu Ser Phe Ala Glu Asp Ala Glu
      50             55             60
Ala Phe Leu Asp Gly Val His Val Gly Pro Val Trp Gly Thr Met Trp
      65             70             75             80
His Gly Ala Phe Glu His Asp Glu Phe Arg Arg Thr Trp Leu Ala Asp
      85             90             95
Ala Ala Arg His Ala Gly Ser Ser Trp Arg Pro His Ser Asp Glu Leu
      100            105            110
Gly Tyr Gln Ala Arg Arg Glu Ala Met Ile Glu Thr Leu Ala Asp Ala
      115            120            125

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<210> 941

<211> 348

<212> DNA

<213> Homo sapiens

<400> 941

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atcttctggt cggcggtgat cacgctggtg accatcggcc tgctgtttgc cggcaacttc
60
gaagccatgc aaaccatggt cgtgctggcc gggctgccgt tctcgggtggt gctgattttc
120
ttcatgttcg gtttgcacaa ggcatgctgc caggacgtgg ccatggagca ggagcaggca
180
caattggctg aacgtggctg ccgtgggtttc agcgagcgcc tgaccgctgt ggacctgcaa
240
ccgagccagg gcaccgtgca acgctttatg gacaaacatg tgacgccggc gttggaacaa
300
gcggcgactg cgttgcgtga tcaagggctg gaagtgcaga ccctgctt
348

```

<210> 942

<211> 116

<212> PRT

<213> Homo sapiens

<400> 942

```

Ile Phe Trp Ser Ala Val Ile Thr Leu Val Thr Ile Gly Leu Leu Phe
1             5             10             15
Ala Gly Asn Phe Glu Ala Met Gln Thr Met Val Val Leu Ala Gly Leu
20            25            30
Pro Phe Ser Val Val Leu Ile Phe Met Phe Gly Leu His Lys Ala
35            40            45
Met Arg Gln Asp Val Ala Met Glu Gln Glu Gln Ala Gln Leu Ala Glu
50            55            60
Arg Gly Arg Arg Gly Phe Ser Glu Arg Leu Thr Ala Leu Asp Leu Gln
65            70            75            80
Pro Ser Gln Gly Thr Val Gln Arg Phe Met Asp Lys His Val Thr Pro
85            90            95
Ala Leu Glu Gln Ala Ala Thr Ala Leu Arg Asp Gln Gly Leu Glu Val

```

100 105 110
 Gln Thr Leu Leu
 115

<210> 943
 <211> 439
 <212> DNA
 <213> Homo sapiens

<400> 943
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 120
 ttgacctctt ctgtgatcac atctcactt ctgagcctat ctgcccaccc agtcaatccc
 180
 ccttggttct gggatgctat ttccctggcc gcctccctct aggagtgttt agaaccctca
 240
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<210> 944
 <211> 118
 <212> PRT
 <213> Homo sapiens

<400> 944
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 Glu Thr Pro Ser Leu Leu Ser Phe Ala Leu Phe Cys Asp His Ile Leu
 35 40 45
 Thr Ser Glu Pro Ile Cys Pro Ser Ser Gln Ser Pro Leu Val Leu Gly
 50 55 60
 Cys Tyr Phe Pro Gly Arg Leu Pro Leu Gly Val Phe Arg Thr Leu Thr
 65 70 75 80
 Val Gly Arg Arg Glu Gly Arg Trp Leu Arg Tyr Leu Glu Arg Asp Val
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 Trp Ile Pro Gly His Gly Arg Lys Glu Ala Gly Glu Leu Glu Lys Gly
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 <211> 339
 <212> DNA
 <213> Homo sapiens

<400> 945

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<210> 946

<211> 113

<212> PRT

<213> Homo sapiens

<400> 946

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| Xaa | Ile | Arg | Glu | Ala | Phe | His | Ile | Phe | Phe | Leu | Leu | Ile | Ile | Ser | Ile |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Ala | Leu | Tyr | Val | Glu | Met | Val | Ile | Tyr | Ile | Tyr | Thr | His | Thr | His | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Tyr | Val | Cys | Val | Cys | Ile | Tyr | Val | Tyr | Ile | Tyr | Ser | Val | Tyr | Asn | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Thr | Cys | Thr | Val | Tyr | Ser | Ala | Pro | Arg | Val | Cys | Leu | Ser | Asn | Ser | Phe |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Ser | Lys | Glu | Leu | Leu | Leu | Phe | Glu | Met | Glu | Gly | Glu | Gly | Gly | Pro | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Gln | Ser | Ile | Val | Gln | Val | Glu | Ser | Leu | Trp | Met | Gly | Leu | Cys | Ile | Ser |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Tyr | Gln | Pro | Ile | Trp | Val | Gln | Ile | Gly | Phe | Glu | Gly | Leu | Pro | Leu | Ser |
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Thr

<210> 947

<211> 648

<212> DNA

<213> Homo sapiens

<400> 947

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 240
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 420
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<210> 948

<211> 154

<212> PRT

<213> Homo sapiens

<400> 948

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Glu | Met | Ser | Gly | Gln | Gln | Val | Tyr | Gly | Val | Leu | Val | Ala | Ser | His |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Cys | Thr | Gly | Val | Gly | Lys | Glu | Trp | Thr | Gly | Val | Asp | Lys | Ser | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Ala | Ala | Gly | Ser | Ser | Asp | Ala | Ser | Ala | Phe | Leu | Leu | Cys | Ala | Lys |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Leu | Cys | Arg | Gly | Asp | Asp | Ala | Ser | Lys | Leu | Ser | Leu | Leu | Gly | Met | Ser |
| | | | 50 | | | | 55 | | | | 60 | | | | |
| Ser | Gln | Ala | Phe | Ile | His | Trp | Asp | Ser | Gln | Ser | Trp | Ile | Arg | Gly | Tyr |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ser | Gly | Asn | Pro | His | Pro | Trp | Arg | Ser | Glu | Pro | Leu | Asp | Thr | Met | Pro |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Phe | Leu | Gly | Trp | Ser | Cys | Cys | Pro | Cys | Pro | Phe | Thr | Ile | Lys | Ile | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gln | Glu | Asn | Thr | Arg | Thr | His | Leu | Ser | Phe | Ser | Ser | Tyr | Ala | Lys | Pro |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Val | Leu | Pro | Arg | Thr | Ser | Pro | Met | Cys | Thr | Ala | Leu | Leu | Phe | Ser | Ala |
| | | | 130 | | | | 135 | | | | | 140 | | | |
| Asp | Gln | Val | Gln | Leu | Leu | Leu | Leu | Arg | Trp | | | | | | |
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<210> 949

<211> 661

<212> DNA

<213> Homo sapiens

<400> 949

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 240

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 420
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 480
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 661

<210> 950

<211> 210

<212> PRT

<213> Homo sapiens

<400> 950

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Met | Thr | Phe | Lys | Gly | Asn | Ala | Arg | Ile | Ser | Asn | Val | Glu | Phe | Tyr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| His | Ser | Gly | Gln | Glu | Gly | Phe | Arg | Asp | Ser | Thr | Asp | Pro | Arg | Tyr | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | Thr | Phe | Leu | Asn | Leu | Gly | Gln | Ile | Gln | Glu | His | Gly | Ser | Ser | Tyr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ile | Arg | Gly | Cys | Ala | Phe | His | His | Gly | Phe | Ser | Pro | Ala | Ile | Gly | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Phe | Gly | Thr | Asp | Gly | Leu | Asp | Ile | Asp | Asp | Asn | Ile | Ile | His | Phe | Thr |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Val | Gly | Glu | Gly | Ile | Arg | Ile | Trp | Gly | Asn | Ala | Asn | Arg | Val | Arg | Gly |
| | | | | 85 | | | | | 90 | | | | 95 | | |
| Asn | Leu | Ile | Ala | Leu | Ser | Val | Trp | Pro | Gly | Thr | Tyr | Gln | Asn | Arg | Lys |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asp | Leu | Ser | Ser | Thr | Leu | Trp | His | Ala | Ala | Ile | Glu | Ile | Asn | Arg | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Thr | Asn | Thr | Val | Leu | Gln | Asn | Asn | Val | Val | Ala | Gly | Phe | Gly | Arg | Ala |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gly | Tyr | Arg | Ile | Asp | Gly | Glu | Pro | Cys | Pro | Gly | Gln | Phe | Asn | Pro | Val |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |
| Glu | Lys | Trp | Phe | Asp | Asn | Glu | Ala | His | Gly | Gly | Leu | Tyr | Gly | Ile | Tyr |
| | | | 165 | | | | | | 170 | | | | 175 | | |
| Met | Asn | Gln | Asp | Gly | Leu | Pro | Gly | Cys | Ser | Leu | Ile | Gln | Gly | Phe | Thr |
| | | 180 | | | | | | 185 | | | | 190 | | | |
| Ile | Trp | Thr | Cys | Trp | Asp | Tyr | Gly | Ile | Tyr | Phe | Gln | Thr | Thr | Glu | Ser |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Val | His | | | | | | | | | | | | | | |
| | 210 | | | | | | | | | | | | | | |

<210> 951

<211> 2615

<212> DNA

<213> Homo sapiens

<400> 951

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240
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1440
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1500

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 1920
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 1980
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<210> 952

<211> 357

<212> PRT

<213> Homo sapiens

<400> 952

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| Xaa | Pro | Ala | Pro | Thr | Met | Pro | Trp | Pro | Leu | Leu | Leu | Leu | Leu | Ala | Val |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Ser | Gly | Ala | Gln | Thr | Thr | Arg | Pro | Cys | Phe | Pro | Gly | Cys | Gln | Cys | Glu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | Glu | Thr | Phe | Gly | Leu | Phe | Asp | Ser | Phe | Ser | Leu | Thr | Arg | Val | Asp |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Cys | Ser | Gly | Leu | Gly | Pro | His | Ile | Met | Pro | Val | Pro | Ile | Pro | Leu | Asp |
| | | | 50 | | | 55 | | | | 60 | | | | | |
| Thr | Ala | His | Leu | Asp | Leu | Ser | Ser | Asn | Arg | Leu | Glu | Met | Val | Asn | Glu |

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65          70          75          80
Ser Val Leu Ala Gly Pro Gly Tyr Thr Thr Leu Ala Gly Leu Asp Leu
          85          90          95
Ser His Asn Leu Leu Thr Ser Ile Ser Pro Thr Ala Phe Ser Arg Leu
          100          105          110
Arg Tyr Leu Glu Ser Leu Asp Leu Ser His Asn Gly Leu Thr Ala Leu
          115          120          125
Pro Ala Glu Ser Phe Thr Ser Ser Pro Leu Ser Asp Val Asn Leu Ser
          130          135          140
His Asn Gln Leu Arg Glu Val Ser Val Ser Ala Phe Thr Thr His Ser
145          150          155          160
Gln Gly Arg Ala Leu His Val Asp Leu Ser His Asn Leu Ser Pro Pro
          165          170          175
Arg Ala Pro Pro His Glu Gly Arg Pro Ala Cys Ala His His Ser Glu
          180          185          190
Pro Glu Pro Gly Leu Glu Pro Ala Pro Cys Arg Ala Gln Pro Arg Asp
195          200          205
Leu Pro Leu Arg Tyr Leu Ser Leu Asp Gly Asn Pro Leu Ala Val Ile
210          215          220
Gly Pro Gly Ala Phe Ala Gly Leu Gly Gly Leu Thr His Leu Ser Leu
225          230          235          240
Ala Ser Leu Gln Arg Leu Pro Glu Leu Ala Pro Ser Gly Phe Arg Glu
          245          250          255
Leu Pro Gly Leu Gln Val Leu Asp Leu Ser Gly Asn Pro Lys Leu Asn
          260          265          270
Trp Ala Gly Ala Glu Val Phe Ser Gly Leu Ser Ser Leu Gln Glu Leu
          275          280          285
Asp Leu Ser Gly Thr Asn Leu Val Pro Leu Pro Glu Ala Leu Leu Leu
          290          295          300
His Leu Pro Ala Leu Gln Ser Val Ser Val Gly Gln Asp Val Arg Cys
305          310          315          320
Arg Arg Leu Val Arg Glu Gly Thr Tyr Pro Arg Arg Pro Gly Ser Ser
          325          330          335
Pro Lys Val Ala Leu His Cys Val Asp Thr Arg Glu Ser Ala Ala Arg
          340          345          350
Gly Pro Thr Ile Leu
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<210> 953

<211> 347

<212> DNA

<213> Homo sapiens

<400> 953

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180
aagccattgc gtttcaccct ttcattgccc ttcctttccc cttccaagtg agctctttga
240
ggtagtcat ggagggcagt gtccctctgc atcctgtctg gggttgtcaa atatggccaa
300

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347

<210> 954

<211> 103

<212> PRT

<213> Homo sapiens

<400> 954

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| Met | Glu | Pro | Thr | Trp | Pro | Tyr | Leu | Thr | Thr | Pro | Asp | Arg | Met | Gln | Arg |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Asp | Thr | Ala | Leu | His | Asp | Ser | Pro | Gln | Arg | Ala | His | Leu | Glu | Gly | Glu |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| Arg | Lys | Gly | His | Glu | Arg | Val | Lys | Arg | Asn | Gly | Phe | Ser | Leu | Pro | Ser |
| | 35 | | | | | 40 | | | | | 45 | | | | |
| Tyr | Cys | Val | Ser | Ala | Ala | Val | Thr | Pro | Gln | Ser | Arg | Gln | Val | Gln | Gln |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Arg | His | Gly | Lys | Thr | Ser | Thr | Pro | Asn | Asp | Gly | Ser | Arg | Asp | Gly |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Glu | Ser | Val | Val | His | Thr | Leu | Arg | Gly | Asp | Pro | Arg | Glu | Thr | Gly | Leu |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Arg | Thr | Gly | Met | Ala | Ser | Arg | | | | | | | | | |
| | | | | 100 | | | | | | | | | | | |

<210> 955

<211> 634

<212> DNA

<213> Homo sapiens

<400> 955

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300
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420
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480
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<210> 956

<211> 113
 <212> PRT
 <213> Homo sapiens

<400> 956
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 35 40 45
 Val Thr Glu Ala Leu Thr Cys Arg Ala Ala His Leu Gln Ser Arg Ser
 50 55 60
 Pro Ala Glu Pro Phe Thr Cys Arg Ala Leu His Leu Gln Asn Arg Ser
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 85 90 95
 Pro Ala Glu Pro Phe Thr Cys Arg Ala Ala His Leu Gln Ser Pro Ser
 100 105 110
 Arg

<210> 957
 <211> 823
 <212> DNA
 <213> Homo sapiens

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 180
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 420
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 660
 tgtaccatac atcactatgt cttcccaagc tcacacctcc cagctcccag caaagggcag
 720
 ggcgtgtcta ccaccacca gccactggg gtcccccttc ctcgccgagg cctccggagc
 780

atgggtctgc tggcccttcc tttctttgcc tcttagtctg gaa
823

<210> 958

<211> 105

<212> PRT

<213> Homo sapiens

<400> 958

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ala | Val | Gly | His | Val | Gly | Gln | Lys | Val | Thr | Trp | Ser | Gln | Ala | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Ser | Gln | Val | Pro | Thr | Gly | Thr | Ser | Pro | Leu | Gln | Ala | Phe | Trp | Asp |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Pro | His | Trp | Leu | Arg | Trp | Ala | Leu | His | Ser | Thr | Pro | Thr | Gly | Lys | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Phe | Leu | Pro | Ser | Ser | Lys | Val | Pro | Lys | Leu | Pro | Gly | Cys | Ser | Val |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Gly | Pro | Arg | Leu | Gln | His | Thr | Leu | Glu | Ala | Ala | Pro | His | Pro | Val | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Trp | Phe | Arg | Leu | Leu | Gln | Ala | Leu | Ser | Ser | Ala | Gly | His | Pro | Leu | Leu |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Pro | Val | Ser | Arg | Pro | Leu | Gly | Thr | Ala | | | | | | | |
| | | | 100 | | | | | 105 | | | | | | | |

<210> 959

<211> 586

<212> DNA

<213> Homo sapiens

<400> 959

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120
ctggcagtgt ggtgccagga taacaacctc tccctcaacg tgatcaagac cacgaagatg
180
atcgtggact acaggaaaag gagggctcag cagccccca ttctcattga tggggctgta
240
tgaggagccag ttgagagctt caagtccctt ggtgtccaca tcaccatcga actatcatgg
300
tccaaacaca ccaagacagt agtgaagagg gtgcgacaat gcctattcca cctcggtaga
360
caaaaaagat ttggaatgga tcctcagacc ctcaaaaagt ttgacatcta caccatcgag
420
agcatcatga ctggttgcat caccgcctgg tatggcaact gctcggcctc cgaccgcaag
480
gcactacaga gggtagtgcg tacggcccag tacatcactg gggctaagct tcctgccatc
540
caggacctct ataccaggcg gtgtcagcgg aagaccctga caattg
586

<210> 960

<211> 195

<212> PRT

<213> Homo sapiens

<400> 960

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Xaa His Asp Cys Met Ala Lys His Asp Ser Asn Thr Ile Ile Lys Phe
 1           5           10           15
Ala Asp Asp Thr Thr Val Val Gly Leu Ile Thr Asp Asn Asp Glu Ala
      20           25           30
Ala Tyr Arg Glu Glu Val Arg Asp Leu Ala Val Trp Cys Gln Asp Asn
      35           40           45
Asn Leu Ser Leu Asn Val Ile Lys Thr Thr Lys Met Ile Val Asp Tyr
      50           55           60
Arg Lys Arg Arg Val Glu His Ala Pro Ile Leu Ile Asp Gly Ala Val
      65           70           75           80
Trp Glu Pro Val Glu Ser Phe Lys Phe Leu Gly Val His Ile Thr Ile
      85           90           95
Glu Leu Ser Trp Ser Lys His Thr Lys Thr Val Val Lys Arg Val Arg
      100          105          110
Gln Cys Leu Phe His Leu Gly Arg Gln Lys Arg Phe Gly Met Asp Pro
      115          120          125
Gln Thr Leu Lys Lys Phe Asp Ile Tyr Thr Ile Glu Ser Ile Met Thr
      130          135          140
Gly Cys Ile Thr Ala Trp Tyr Gly Asn Cys Ser Ala Ser Asp Arg Lys
      145          150          155          160
Ala Leu Gln Arg Val Val Arg Thr Ala Gln Tyr Ile Thr Gly Ala Lys
      165          170          175
Leu Pro Ala Ile Gln Asp Leu Tyr Thr Arg Arg Cys Gln Arg Lys Thr
      180          185          190
Leu Thr Ile
      195

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<210> 961

<211> 502

<212> DNA

<213> Homo sapiens

<400> 961

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acgcgttgtc gtctctccgt agaccattca gtttggcaaa acttccactg gagtctgtgc
60
atgactggat ggtctctttg acagccctgt caaggaatac caacagaata ttgattctcc
120
taaactgtat agtaacctgc taaccagtcg gaaagagcta ccacccaatg gagatactaa
180
atccatggta atggaccatc gagggcaacc tccagagttg gctgctcttc ccactcctga
240
gtctacaccc gtgcttcacc agaagaccct gcaggccatg aagagccact cagaaaaggc
300
ccatggccat ggagcttcaa ggaaagaaac ccctcagttt tttccgtcta gtccgccacc
360
tcattcccca ataagtcatg ggcatatccc cagtgccatt gttcttccaa atgctaccca
420
tgactacaac acgtctttct caaactccaa tgctcacaaa gctgaaaaga agcttcaaaa
480
cattgatcac cccttcacgc gt
502

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<210> 962
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 962
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 Thr Pro Glu Ser Thr Pro Val Leu His Gln Lys Thr Leu Gln Ala Met
 20 25 30
 Lys Ser His Ser Glu Lys Ala His Gly His Gly Ala Ser Arg Lys Glu
 35 40 45
 Thr Pro Gln Phe Phe Pro Ser Ser Pro Pro Pro His Ser Pro Ile Ser
 50 55 60
 His Gly His Ile Pro Ser Ala Ile Val Leu Pro Asn Ala Thr His Asp
 65 70 75 80
 Tyr Asn Thr Ser Phe Ser Asn Ser Asn Ala His Lys Ala Glu Lys Lys
 85 90 95
 Leu Gln Asn Ile Asp His Pro Phe Thr Arg
 100 105

<210> 963
 <211> 1298
 <212> DNA
 <213> Homo sapiens

<400> 963
 nntcgcgagc acactccagc ctctggggag caggccacag aacgcagggt gaaacccaag
 60
 gcgctctaga ggagatgaat tatggatccg ccctcccga atcctggctc ggccctcccc
 120
 acgccaccca gggccagtcg ggtctgctca cagcccagag aggcgcgtg tccagccgcg
 180
 ggcaagagac agagcaggtc cctgtgtatc caagtcctg agcccgtag accggcccca
 240
 ggccctgtag agagccagca gccaccatgg cgaaggagga agatgaggag aagaaagcca
 300
 agaaagggaa gaaggggaag aaggcaccgg acccgagaa gcccaaacgg agcctgaagg
 360
 ggacgtcgcg ggtgttcatt ggcttcgcg accgaacacc caagatctac aagaagggcc
 420
 agttccgcag cgcctcggcc ttcttctggg gcctccacac cggcccccac aagaccaagc
 480
 gcacgaggaa ggcccgcacc gtgctcgggt acacgtcaga gcttatgacg cacatgcgca
 540
 tgggcaagaa gaagcgggag atgaagggca agaagccgct cttcatggtg atccgcttcc
 600
 caggccgccc tggctacggc cgcctgcggc cgcgcgccc gtcactcagc aaagcgtcca
 660
 cggccatcaa ctggctcaca aaaaagttcc tcctcaagaa ggccgaggag tcgggcagcg
 720
 aacaggccac agtggacgcc tggctgcagc gctcgagctc ccgcatgggc tcccgcgaac
 780

tcccccttccc gtcgggtgcc gagatcctgc ggccctggggg ccggtccgg aggttcccc
 840
 gcagccgcag catctacgcg tcaggcgagc ccctgggctt cctgcccttc gaggacgagg
 900
 cccattcca tcaactcgggc tcccgcaagt cgctgtacgg gcttgagggc ttccaggacc
 960
 tggggcgagta ttatgactat caccgcgacg gcgacgacta ctacgaccgg cagtcaactcc
 1020
 accgtacga ggagcaggaa ccctacctgg cgggcctcgg cccctacagc ccggcctggc
 1080
 caccctacgg cgaccactac tacgggtacc cgcccagagga tccctacgac tactaccacc
 1140
 ccgactatta cgggtggcccc gttgatccgg ggtacaccta cggctacggc tacgacgatt
 1200
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 1260
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 1298

<210> 964

<211> 235

<212> PRT

<213> Homo sapiens

<400> 964

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ala | Ser | Gln | Ala | Ala | Val | Ala | Thr | Ala | Ala | Cys | Gly | Arg | Ala | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | His | Ser | Ala | Lys | Arg | Pro | Arg | Pro | Ser | Thr | Gly | Ser | Gln | Lys | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Ser | Ser | Arg | Arg | Pro | Arg | Ser | Arg | Ala | Ala | Asn | Arg | Pro | Gln | Trp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Thr | Pro | Gly | Cys | Ser | Ala | Arg | Ala | Pro | Ala | Trp | Ala | Pro | Ala | Asn | Ser |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Pro | Ser | Arg | Arg | Val | Pro | Arg | Ser | Cys | Gly | Leu | Gly | Ala | Gly | Ser | Gly |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Gly | Ser | Pro | Ala | Ala | Ala | Ala | Ser | Thr | Arg | Gln | Ala | Ser | Pro | Trp | Ala |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Ser | Cys | Pro | Ser | Arg | Thr | Arg | Pro | His | Ser | Ile | Thr | Arg | Ala | Pro | Ala |
| | | 100 | | | | | 105 | | | | | 110 | | | |
| Ser | Arg | Cys | Thr | Gly | Leu | Arg | Ala | Ser | Arg | Thr | Trp | Ala | Ser | Ile | Met |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Thr | Ile | Thr | Ala | Thr | Ala | Thr | Thr | Thr | Thr | Gly | Ser | His | Ser | Thr | |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ala | Thr | Arg | Ser | Arg | Asn | Pro | Thr | Trp | Arg | Ala | Ser | Ala | Pro | Thr | Ala |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |
| Arg | Pro | Gly | His | Pro | Thr | Ala | Thr | Thr | Thr | Gly | Thr | Arg | Pro | Arg | |
| | | | 165 | | | | | 170 | | | | | 175 | | |
| Ile | Pro | Thr | Thr | Thr | Thr | Pro | Thr | Ile | Thr | Val | Ala | Pro | Leu | Ile | |
| | | 180 | | | | | 185 | | | | | 190 | | | |
| Arg | Gly | Thr | Pro | Thr | Ala | Thr | Ala | Thr | Thr | Ile | Thr | Asn | Pro | His | Met |
| | 195 | | | | | 200 | | | | | | 205 | | | |
| Arg | Pro | Arg | Arg | Gly | Thr | Arg | Leu | Leu | Thr | Ala | Thr | Thr | Met | Gly | Thr |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Arg | Ala | Arg | Arg | Thr | Leu | Met | Ala | Thr | Thr | Trp | | | | | |

225

230

235

<210> 965

<211> 336

<212> DNA

<213> Homo sapiens

<400> 965

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nnngtgacca ttatgggtgg tgcccgtagc cgtgaagtgg aaggcgttga ttttggtggc
60
cgggtcagcg atgccgaaaa ggctgaaatc ctcggccgcg ccgatgtgta tgcgcccc
120
aataccggcg gtgagagctt tggcattgtc ttggtggaag ccatggcggc aggcgcagcc
180
gttggtgctt cagacttga ggccttcgc gcagtgtgca acgccgattc cgatgatgtt
240
gccggcgcgc tatatcgcaa tgaggatagt aatgacctg ctcgtgtact caacgaggtg
300
ctcaggatc ctgagtatcg tgcccgctta gtgcac
336

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<210> 966

<211> 112

<212> PRT

<213> Homo sapiens

<400> 966

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Xaa Val Thr Ile Met Gly Gly Ala Arg Thr Arg Glu Val Glu Gly Val
1           5           10           15
Asp Phe Val Gly Arg Val Ser Asp Ala Glu Lys Ala Glu Ile Leu Gly
20          25          30
Arg Ala Asp Val Tyr Val Ala Pro Asn Thr Gly Gly Glu Ser Phe Gly
35          40          45
Ile Val Leu Val Glu Ala Met Ala Ala Gly Ala Ala Val Val Ala Ser
50          55          60
Asp Leu Glu Ala Phe Arg Ala Val Cys Asn Ala Asp Ser Asp Asp Val
65          70          75          80
Ala Gly Ala Leu Tyr Arg Asn Glu Asp Ser Asn Asp Leu Ala Arg Val
85          90          95
Leu Asn Glu Val Leu Glu Asp Pro Glu Tyr Arg Ala Arg Leu Val His
100         105         110

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<210> 967

<211> 393

<212> DNA

<213> Homo sapiens

<400> 967

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ncaaatggca attcatagcc cgccagatcg gacacggagc tgggtggtatc cacggattcg
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ggcgcgagg cgctgggctc aagctccgct tcggcaccgg tcggcactga ggaatctccg
120
tcggcctccg ctctggcgc agcctgggct gcgccagact ctgcgggagg caccttctcc
180

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cgggttcgcc agccaaatgg cgttgcaggc tccagcatcc agtccggtgc cttcggcacc
 240
 cccgcactgc gcagagaggc cgccagaaac gatggcaccg gcggcgcggg aggtgataca
 300
 ggcgcttcgg ccggagcgct cacggactcc ggcactacag gtgcagcttg cgcttcctgc
 360
 ggcggagcaa cagggtcact tcgaggcggg gat
 393

<210> 968

<211> 125

<212> PRT

<213> Homo sapiens

<400> 968

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Ala | Arg | Ser | Asp | Thr | Glu | Leu | Val | Val | Ser | Thr | Asp | Ser | Gly | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Glu | Ala | Ser | Gly | Ser | Ser | Ser | Ala | Ser | Ala | Pro | Val | Gly | Thr | Glu | Glu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Pro | Ser | Ala | Ser | Ala | Ser | Ala | Ala | Ala | Trp | Ala | Ala | Pro | Asp | Ser |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Ala | Gly | Gly | Thr | Phe | Ser | Arg | Val | Arg | Gln | Pro | Asn | Gly | Val | Ala | Gly |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Ser | Ser | Ile | Gln | Ser | Gly | Ala | Phe | Gly | Thr | Pro | Ala | Leu | Arg | Arg | Glu |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Ala | Ala | Arg | Asn | Asp | Gly | Thr | Gly | Gly | Ala | Gly | Gly | Asp | Thr | Gly | Ala |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Ser | Ala | Gly | Ala | Leu | Thr | Asp | Ser | Gly | Thr | Thr | Gly | Ala | Ala | Cys | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ser | Cys | Gly | Gly | Ala | Thr | Gly | Ser | Leu | Arg | Gly | Gly | Asp | | | |
| | | | 115 | | | | | 120 | | | | 125 | | | |

<210> 969

<211> 880

<212> DNA

<213> Homo sapiens

<400> 969

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 120
 atgaattttc gagtaaaactt acatagaatg cctatgagac acaggaagaa ggcagcagac
 180
 aagaatctta ccttgccgtc tttagtatgt gaagtactgg acctgatggt agagtttatt
 240
 gtaacacaca tgatgaagga gtttcctatg gatctctata tacgctgcat ccaggtagta
 300
 cacaaactgc tctgctacca gaagaagtgt cgggtacgcc tgcattacac ctggcggggag
 360
 ctctggtcag ccttgataaa tttgctgaag ttccttatgt caaatgagac tgtacttttg
 420
 gccaaacaca acattttttac attagccctt atgattgtga acctatttaa tatgtttatc
 480

acatatggcg acacatttct gccaaccccc agcagctatg atgaacttta ctatgagatt
 540
 atccgcatgc accagagctt tgacaacctc tactccatgg tcctgaggct ttctaccaat
 600
 gcaggccagt ggaaggaagc agctagcaag gtgacccatg cattgggtaa tatcagagcc
 660
 atcatcaacc actttaaccc caaaattgag tcctacgctg ctgtgaatca catatcccaa
 720
 ctgtcagagg agcaggtgct ggaggtgggtg agagccaact atgacacgct cacgctgaag
 780
 ctgcaggatg gcctggacca gtatgagcgc tactcagagc agcacaagga agctgccttc
 840
 ttcaaagagc tggttcgatc cattagcacc aacgtccgga
 880

<210> 970

<211> 263

<212> PRT

<213> Homo sapiens

<400> 970

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Thr | Met | His | Phe | Cys | Met | Met | Ile | Asn | Met | Asn | Phe | Arg | Val | Asn |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | His | Arg | Met | Pro | Met | Arg | His | Arg | Lys | Lys | Ala | Ala | Asp | Lys | Asn |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Thr | Leu | Pro | Ser | Leu | Val | Cys | Glu | Val | Leu | Asp | Leu | Met | Val | Glu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Phe | Ile | Val | Thr | His | Met | Met | Lys | Glu | Phe | Pro | Met | Asp | Leu | Tyr | Ile |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Arg | Cys | Ile | Gln | Val | Val | His | Lys | Leu | Leu | Cys | Tyr | Gln | Lys | Lys | Cys |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Arg | Val | Arg | Leu | His | Tyr | Thr | Trp | Arg | Glu | Leu | Trp | Ser | Ala | Leu | Ile |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Asn | Leu | Leu | Lys | Phe | Leu | Met | Ser | Asn | Glu | Thr | Val | Leu | Leu | Ala | Lys |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| His | Asn | Ile | Phe | Thr | Leu | Ala | Leu | Met | Ile | Val | Asn | Leu | Phe | Asn | Met |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Phe | Ile | Thr | Tyr | Gly | Asp | Thr | Phe | Leu | Pro | Thr | Pro | Ser | Ser | Tyr | Asp |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Glu | Leu | Tyr | Tyr | Glu | Ile | Ile | Arg | Met | His | Gln | Ser | Phe | Asp | Asn | Leu |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | |
| Tyr | Ser | Met | Val | Leu | Arg | Leu | Ser | Thr | Asn | Ala | Gly | Gln | Trp | Lys | Glu |
| | | | 165 | | | | | 170 | | | | | 175 | | |
| Ala | Ala | Ser | Lys | Val | Thr | His | Ala | Leu | Val | Asn | Ile | Arg | Ala | Ile | Ile |
| | | | 180 | | | | 185 | | | | | 190 | | | |
| Asn | His | Phe | Asn | Pro | Lys | Ile | Glu | Ser | Tyr | Ala | Ala | Val | Asn | His | Ile |
| | 195 | | | | | 200 | | | | | 205 | | | | |
| Ser | Gln | Leu | Ser | Glu | Glu | Gln | Val | Leu | Glu | Val | Val | Arg | Ala | Asn | Tyr |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Asp | Thr | Leu | Thr | Leu | Lys | Leu | Gln | Asp | Gly | Leu | Asp | Gln | Tyr | Glu | Arg |
| 225 | | | | 230 | | | | | 235 | | | | | 240 | |
| Tyr | Ser | Glu | Gln | His | Lys | Glu | Ala | Ala | Phe | Phe | Lys | Glu | Leu | Val | Arg |
| | | | 245 | | | | | 250 | | | | | 255 | | |
| Ser | Ile | Ser | Thr | Asn | Val | Arg | | | | | | | | | |

260

<210> 971
 <211> 337
 <212> DNA
 <213> Homo sapiens

<400> 971
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 cgcggtcggtg gtggtgcagg cttccccact ggggtgaaat ggtcctttgt tccccaaaac
 120
 aatcccaacc ccaaatacct ggttggttaac ggagacgaat ccgaaccggg cacgtgcaag
 180
 gacatgccgc tcattatggc aagcccgac acgcttgctg aaggtgctct tatctccgc
 240
 tacgctttcg gatccgagca ggctttcatc tacctccgtg gagaagttgt tcaggtagcc
 300
 cggcgccttg aagaaaaaaaa aaaaatgcga nnnnnnn
 337

<210> 972
 <211> 112
 <212> PRT
 <213> Homo sapiens

<400> 972
 Ser Arg Gly Leu Thr Met Glu Pro Ser Glu Val Leu Asn Leu Ile Lys
 1 5 10 15
 Asp Ser Gly Leu Arg Gly Arg Gly Gly Ala Gly Phe Pro Thr Gly Val
 20 25 30
 Lys Trp Ser Phe Val Pro Gln Asn Asn Pro Asn Pro Lys Tyr Leu Val
 35 40 45
 Val Asn Gly Asp Glu Ser Glu Pro Gly Thr Cys Lys Asp Met Pro Leu
 50 55 60
 Ile Met Ala Ser Pro His Thr Leu Val Glu Gly Ala Leu Ile Ser Arg
 65 70 75 80
 Tyr Ala Phe Gly Ser Glu Gln Ala Phe Ile Tyr Leu Arg Gly Glu Val
 85 90 95
 Val Gln Val Ala Arg Arg Leu Glu Glu Lys Lys Lys Met Arg Xaa Xaa
 100 105 110

<210> 973
 <211> 360
 <212> DNA
 <213> Homo sapiens

<400> 973
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 ccagcagggc ggcacagcca aggaaatggc atggtcctgc tgcattggtc tcagtgggg
 120
 ccgggacctt ctgtataggc atcacttagg aaccagtcag accatcagat tctcaggacc
 180

cactggatca actgagtcag gaactcaggg ttttcaacac atcctccggg gggattccag
 240
 tggctgtgta actttgagga ccactggcaa agtggctctg gggtcagaga tccgagttca
 300
 tattctgggt ctgcctctga ctgactgcaa cggtagggcaa gtcacttgcc gtgcccagcc
 360

<210> 974

<211> 91

<212> PRT

<213> Homo sapiens

<400> 974

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ala | Trp | Ser | Cys | Cys | Met | Val | Leu | Ser | Gly | Val | Arg | Asp | Leu | Leu |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Tyr | Arg | His | His | Leu | Gly | Thr | Ser | Gln | Thr | Ile | Arg | Phe | Ser | Gly | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Gly | Ser | Thr | Glu | Ser | Gly | Thr | Gln | Gly | Phe | Gln | His | Ile | Leu | Arg |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Asp | Ser | Ser | Gly | Cys | Val | Thr | Leu | Arg | Thr | Thr | Gly | Lys | Val | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Gly | Ser | Glu | Ile | Arg | Val | His | Ile | Leu | Gly | Leu | Pro | Leu | Thr | Asp |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Cys | Asn | Gly | Gly | Gln | Val | Thr | Cys | Arg | Ala | Gln | | | | | |
| | | | | 85 | | | | | 90 | | | | | | |

<210> 975

<211> 2604

<212> DNA

<213> Homo sapiens

<400> 975

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<210> 976
 <211> 411
 <212> PRT
 <213> Homo sapiens

<400> 976
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 35 40 45
 Arg Gly Ala Val Ser Val Asp Ser Leu Ala Glu Leu Glu Asp Gly Ala
 50 55 60
 Leu Leu Leu Gln Thr Leu Gln Leu Ser Lys Ile Ser Phe Pro Ile Gly
 65 70 75 80
 Gln Arg Leu Leu Gly Ser Lys Arg Lys Met Ser Leu Asn Pro Ile Ala
 85 90 95
 Lys Gln Ile Pro Gln Val Val Glu Ala Cys Cys Gln Phe Ile Glu Lys
 100 105 110
 His Gly Leu Ser Ala Val Gly Ile Phe Thr Leu Glu Tyr Ser Val Gln
 115 120 125
 Arg Val Arg Gln Leu Arg Glu Glu Phe Asp Gln Gly Leu Asp Val Val
 130 135 140
 Leu Asp Asp Asn Gln Asn Val His Asp Val Ala Ala Leu Leu Lys Glu
 145 150 155 160
 Phe Phe Arg Asp Met Lys Asp Ser Leu Leu Pro Asp Asp Leu Tyr Met
 165 170 175
 Ser Phe Leu Leu Thr Ala Thr Leu Lys Pro Gln Asp Gln Leu Ser Ala
 180 185 190
 Leu Gln Leu Leu Val Tyr Leu Thr Pro Pro Cys His Ser Asp Thr Leu
 195 200 205
 Glu Arg Leu Leu Lys Ala Leu His Lys Ile Thr Glu Asn Cys Glu Asp
 210 215 220
 Ser Ile Gly Ile Asp Gly Gln Leu Val Pro Gly Asn Arg Met Thr Ser
 225 230 235 240
 Thr Asn Leu Ala Leu Val Phe Gly Ser Ala Leu Leu Lys Lys Gly Lys
 245 250 255
 Phe Gly Lys Arg Glu Ser Arg Lys Thr Lys Leu Gly Ile Asp His Tyr
 260 265 270
 Val Ala Ser Val Asn Val Val Arg Ala Met Ile Asp Asn Trp Asp Val

| | | |
|---|-------------------------------------|-----|
| 275 | 280 | 285 |
| Leu Phe Gln Val Pro Pro His | Ile Gln Arg Gln Val Ala Lys Arg Val | |
| 290 | 295 | 300 |
| Trp Lys Ser Ser Pro Glu Ala Leu Asp Phe Ile Arg Arg Arg Asn Leu | | |
| 305 | 310 | 315 |
| Arg Lys Ile Gln Ser Ala Arg Ile Lys Met Glu Glu Asp Ala Leu Leu | | |
| 325 | 330 | 335 |
| Ser Asp Pro Val Glu Thr Ser Ala Glu Ala Arg Ala Ala Val Leu Ala | | |
| 340 | 345 | 350 |
| Gln Ser Lys Pro Ser Asp Glu Gly Ser Ser Glu Glu Pro Ala Val Pro | | |
| 355 | 360 | 365 |
| Ser Gly Thr Ala Arg Ser His Asp Asp Glu Glu Gly Ala Gly Asn Pro | | |
| 370 | 375 | 380 |
| Pro Ile Pro Glu Gln Asp Arg Pro Leu Leu Arg Val Pro Arg Glu Lys | | |
| 385 | 390 | 395 |
| Glu Ala Lys Thr Gly Val Ser Tyr Phe Phe Pro | | |
| 405 | 410 | |

<210> 977

<211> 378

<212> DNA

<213> Homo sapiens

<400> 977

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378

<210> 978

<211> 126

<212> PRT

<213> Homo sapiens

<400> 978

| | |
|---|----|
| Arg Val Lys Gly Ala Ile Gln Arg Ser Thr Glu Thr Gly Leu Ala Val | |
| 1 | 15 |
| Glu Met Pro Ser Arg Thr Leu Arg Gln Ala Ser His Glu Ser Ile Glu | |
| 20 | 30 |
| Asp Ser Met Asn Ser Tyr Gly Ser Glu Gly Asn Leu Asn Tyr Gly Gly | |
| 35 | 45 |
| Val Cys Leu Ala Ser Asp Ala Gln Phe Ser Asp Phe Leu Gly Ser Met | |
| 50 | 60 |
| Gly Pro Ala Gln Phe Val Gly Arg Gln Thr Leu Ala Thr Thr Pro Met | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 65 | | 70 | | 75 | | 80 | | | | | | | | | |
| Gly | Asp | Val | Glu | Ile | Gly | Leu | Gln | Glu | Arg | Asn | Gly | Gln | Leu | Glu | Val |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Asp | Ile | Ile | Gln | Ala | Arg | Gly | Leu | Thr | Ala | Lys | Pro | Gly | Ser | Lys | Thr |
| | | | 100 | | | | | 105 | | | | | | 110 | |
| Leu | Pro | Ala | Ala | Tyr | Ile | Lys | Ala | Tyr | Leu | Leu | Glu | Met | Ala | | |
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<210> 979
 <211> 3500
 <212> DNA
 <213> Homo sapiens

<400> 979
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<210> 980

<211> 73

<212> PRT

<213> Homo sapiens

<400> 980

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| Met | Ser | Cys | Ser | Pro | Pro | Val | Ile | Gln | Pro | Gly | Lys | Gln | Pro | Pro | Pro |
| 1 | | | | 5 | | | | 10 | | | | 15 | | | |
| Leu | Ala | Gln | Gly | Arg | Gly | Cys | Arg | Gln | Gly | Lys | Gly | His | Trp | Pro | Pro |
| | | 20 | | | | | | 25 | | | | 30 | | | |
| Cys | Phe | Gln | Val | Leu | Thr | Ala | Ser | Gly | Trp | Ser | Leu | Glu | Ala | Thr | Glu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Glu | Arg | Asn | Ala | Trp | Leu | Arg | Ala | Ala | Glu | His | Ser | Glu | Ala | Ser | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Glu | Asp | Ser | Arg | Pro | Ala | Arg | Ala | Pro | | | | | | | |
| 65 | | | | | 70 | | | | | | | | | | |

<210> 981

<211> 404

<212> DNA

<213> Homo sapiens

<400> 981

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 gttcgcgtcg agcacgtcga gcttgacgac gaagacgtgg acgacgagaa caccgacatc
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<210> 982

<211> 134

<212> PRT

<213> Homo sapiens

<400> 982

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Ala | Tyr | Ala | Asp | Ser | Thr | Ala | Val | Val | Gly | Pro | Leu | Ala | Pro | Ala |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Pro | Asp | Pro | His | Ala | Trp | Asp | Leu | Cys | Glu | Arg | His | Ser | Ala | His | Ile |
| | | | 20 | | | | 25 | | | | | 30 | | | |
| Thr | Ala | Pro | Val | Gly | Trp | Glu | Leu | Val | Arg | Val | Glu | His | Val | Glu | Leu |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Asp | Asp | Glu | Asp | Val | Asp | Asp | Glu | Asn | Thr | Asp | Ile | Thr | Ala | Leu | Ala |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Glu | Ala | Gly | Ala | Arg | Gly | Gly | Ala | Gly | Asn | His | Arg | Phe | Gly | Gly | Asp |
| 65 | | | | 70 | | | | 75 | | | | | | 80 | |
| Arg | Pro | Gly | Ser | Asp | Arg | Val | Leu | Gly | Arg | Gln | Arg | Leu | Gln | Gln | Pro |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Arg | His | Leu | Gln | Pro | Ser | Gly | Ala | Pro | Asp | Gln | Ala | Cys | Gly | Gly | Thr |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Ala | Ser | Gly | Ala | Gln | Gly | Gly | Ala | Pro | Leu | Pro | Pro | Ala | His | Cys | Pro |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Gly | Ser | Glu | Pro | Gly | Arg | | | | | | | | | | |
| | | 130 | | | | | | | | | | | | | |

<210> 983

<211> 579

<212> DNA

<213> Homo sapiens

<400> 983

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 120
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 180
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 aatctgatga gttgccctag tacttccagt gtgctcaaat gtcacctccc tagagaagtg
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 360
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 420

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<210> 984

<211> 103

<212> PRT

<213> Homo sapiens

<400> 984

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ala | Ala | Thr | Cys | Leu | Asn | Lys | Ser | Gln | Ser | Pro | His | His | Gly | Pro |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Lys | Thr | Leu | His | Asn | Leu | Gly | Pro | Phe | Thr | Ser | Leu | Thr | Leu | Ser | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ile | Thr | Leu | Asn | Ile | Thr | His | Ser | Pro | Ala | Thr | Leu | Ala | Ser | Leu | |
| | | 35 | | | | | 40 | | | | 45 | | | | |
| Leu | Phe | Pro | Lys | Arg | Ala | Arg | Tyr | Pro | Ser | Phe | Ser | Gly | Pro | Leu | Tyr |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Leu | Phe | Phe | Ser | Leu | Pro | Glu | Thr | Pro | Phe | Leu | Leu | Asn | Asn | Leu | Met |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ser | Cys | Pro | Ser | Thr | Ser | Ser | Val | Leu | Lys | Cys | His | Leu | Pro | Arg | Glu |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Val | Phe | Pro | Asp | Gln | His | Ile | | | | | | | | | |
| | | | | 100 | | | | | | | | | | | |

<210> 985

<211> 313

<212> DNA

<213> Homo sapiens

<400> 985

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 180
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 313

<210> 986

<211> 98

<212> PRT

<213> Homo sapiens

<400> 986

Met Asn Gly Leu Ala Val Thr Val His Thr Lys Leu Asp Lys Lys Gln

| | | | |
|---|----|----|----|
| 1 | 5 | 10 | 15 |
| Gln Leu Gly Asn Ile Gln Met Ser Tyr Ser Ala Lys Asn Ile Asp Val | | | |
| | 20 | 25 | 30 |
| Ala Asn Phe Lys Ala His Asp Leu Lys Leu Val Thr Glu Ile Asn His | | | |
| | 35 | 40 | 45 |
| Leu Asp Asn Gln Ile Phe Ile Asp Tyr Ala Lys Leu Ile Lys Glu Ser | | | |
| | 50 | 55 | 60 |
| Asp Ala Leu Pro Val Asp Gln Gln Val Ala Phe Phe Leu Asn Asn Met | | | |
| 65 | 70 | 75 | 80 |
| Gln Ser Ile Ile Asp Gly Lys Pro Glu Leu Asn Ile Thr Glu Leu Ser | | | |
| | 85 | 90 | 95 |
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<210> 987

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| Leu | Lys | Asn | Arg | Ala | Leu | Glu | Asp | Ile | Thr | Ala | Ser | Ile | Ala | Met | Ala |
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| Pro Ala Leu Arg Phe Val Glu Val Gln Gly Pro Asn Ser Ser Ala Thr | | | | | | | | | | | | | | | |
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| Phe Met Val Ser Cys Leu Lys Glu Thr Val Trp Met Lys Phe Ser Thr | | | | | | | | | | | | | | | |
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| Pro Lys Glu Glu Lys Gln Phe Leu Glu Leu Leu Asn Cys Leu Met Ser | | | | | | | | | | | | | | | |
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| Pro Val Lys Pro Gln Gly Ile Pro Val Ala Ala Leu Leu Glu Pro Asp | | | | | | | | | | | | | | | |
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| Glu Val Leu Lys Glu Phe Val Leu Pro Phe Leu Arg Leu Asp Val Glu | | | | | | | | | | | | | | | |
| 465 | 470 | 475 | 480 | | | | | | | | | | | | |
| Glu Val Asp Leu Ser Leu Arg Ile Phe Ile Gln Thr Leu Glu Ala Asn | | | | | | | | | | | | | | | |
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| Ala Cys Arg Glu Glu Tyr Trp Leu Gln Thr Cys Ser Pro Phe Pro Leu | | | | | | | | | | | | | | | |
| | 500 | 505 | 510 | | | | | | | | | | | | |
| Leu Phe Ser Leu Cys Gln Leu Leu Asp Arg Phe Ser Lys Tyr Trp Gln | | | | | | | | | | | | | | | |
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| Leu Pro Lys Glu Lys Arg Cys Leu Ser Leu Asp Arg Lys Asp Leu Ala | | | | | | | | | | | | | | | |
| | 530 | 535 | 540 | | | | | | | | | | | | |
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| Lys Leu Glu Gln Leu Asp Trp Thr Val Gly Leu Arg Leu Lys Ser Phe | | | | | | | | | | | | | | | |
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| Phe Glu Gly His Phe Lys Cys Glu Val Pro Ala Thr Leu Phe Glu Ile | | | | | | | | | | | | | | | |
| | 595 | 600 | 605 | | | | | | | | | | | | |
| Cys Lys Leu Ser Glu Asp Glu Trp Thr Ser Gln Ala His Pro Gly Tyr | | | | | | | | | | | | | | | |
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| Gly Ala Gly Thr Gly Leu Leu Ala Trp Met Glu Cys Cys Cys Val Ser | | | | | | | | | | | | | | | |
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| Ser Gly Ile Ser Glu Arg Met Leu Ser Leu Leu Val Val Asp Val Gly | | | | | | | | | | | | | | | |
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| Asn Pro Glu Glu Val Arg Leu Phe Ser Lys Gly Phe Leu Val Ala Leu | | | | | | | | | | | | | | | |
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| Gln Leu Thr Arg Arg Leu Leu Glu Lys Gln Leu Leu His Val Pro Tyr | | | | | | | | | | | | | | | |
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| Ser Leu Glu Tyr Ile Gln Phe Val Pro Leu Leu Asn Leu Lys Pro Phe | | | | | | | | | | | | | | | |
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| | 725 | 730 | 735 | | | | | | | | | | | | |
| Leu Cys Ser His Ser Cys Arg Asn Trp Leu Pro Leu Glu Gly Trp Asn | | | | | | | | | | | | | | | |
| | 740 | 745 | 750 | | | | | | | | | | | | |
| His Val Val Lys Leu Leu Cys Gly Ser Leu Thr Arg Leu Leu Asp Ser | | | | | | | | | | | | | | | |
| | 755 | 760 | 765 | | | | | | | | | | | | |
| Val Arg Ala Ile Gln Ala Ala Gly Pro Trp Val Gln Gly Pro Glu Gln | | | | | | | | | | | | | | | |
| | 770 | 775 | 780 | | | | | | | | | | | | |
| Asp Leu Thr Gln Glu Ala Leu Phe Val Tyr Thr Gln Val Phe Cys His | | | | | | | | | | | | | | | |
| 785 | 790 | 795 | 800 | | | | | | | | | | | | |
| Ala Leu His Ile Met Ala Met Leu His Pro Glu Val Cys Glu Pro Leu | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | |
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| Thr | Asn | Pro | Ser | Val | Ser | Ser | Leu | Leu | Gln | Arg | Ala | His | Glu | Gln | Cys | | | | |
| | | | | 835 | | | | | 840 | | | | | 845 | | | | | |
| Phe | Leu | Lys | Ser | Ile | Ala | Glu | Gly | Ile | Gly | Pro | Glu | Glu | Arg | Arg | Gln | | | | |
| | | | | 850 | | | | | 855 | | | | | 860 | | | | | |
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| Cys | Pro | Pro | Gly | Asp | Thr | Pro | Val | Asp | Val | Leu | Ser | Gly | Gly | Glu | Arg | | | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | | | |
| Arg | Arg | Val | Ala | Leu | Cys | Lys | Leu | Leu | Ile | Glu | Gln | Pro | Asp | Leu | Leu | | | | |
| | | | 35 | | | | 40 | | | | | 45 | | | | | | | |
| Leu | Leu | Asp | Glu | Pro | Thr | Asn | His | Leu | Asp | Ala | Glu | Ser | Val | Asn | Trp | | | | |
| | | | 50 | | | 55 | | | | 60 | | | | | | | | | |
| Leu | Glu | Gly | His | Leu | Lys | Ser | Tyr | Pro | Gly | Ala | Val | Leu | Ala | Val | Thr | | | | |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | | | | | |
| His | Asp | Arg | Tyr | Phe | Leu | Asp | His | Val | Ala | Glu | Trp | Ile | Cys | Glu | Val | | | | |
| | | | | 85 | | | | 90 | | | | | 95 | | | | | | |
| Asp | Arg | Gly | Gln | Leu | His | Pro | Tyr | Glu | Gly | Asn | Tyr | Ser | Thr | Tyr | Leu | | | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | | | |
| Asp | Thr | Lys | Arg | Lys | Arg | Leu | Gln | Ile | Glu | Gly | Lys | Lys | Asp | Ala | Lys | | | | |
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 Val Phe Ser Pro Thr Val Val Ser Ala Glu Ser Thr Asp Gln Tyr Val
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 actgcggtca ccgtggccac ggtggacgac aacggtcagc ccgatgcgcg agtcgtcgac
 420
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 450

<210> 994

<211> 110

<212> PRT

<213> Homo sapiens

<400> 994

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Arg | Arg | Phe | Gly | Ala | Arg | Gly | Leu | Arg | Arg | Gly | Glu | Phe | Ile | Arg |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Glu | Ile | Pro | Ala | Gln | Gly | Arg | Thr | Ser | Cys | Tyr | Asp | Arg | Cys | Met | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Tyr | Leu | Ser | Gln | Asp | Tyr | Ile | Gly | Glu | Leu | Pro | Lys | Gln | His | Ile | Ser |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Leu | Gly | Lys | Phe | Asp | Pro | Asp | Asn | Ile | Pro | Ala | Asp | Pro | Asn | Glu | Leu |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Phe | Ala | Thr | Trp | Phe | Lys | Glu | Ala | Val | Glu | Asn | Glu | Val | Gly | Asp | Pro |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Thr | Ala | Val | Thr | Val | Ala | Thr | Val | Asp | Asp | Asn | Gly | Gln | Pro | Asp | Ala |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Arg | Val | Val | Asp | Leu | Leu | Tyr | Leu | Asn | Ser | Asp | Gly | Phe | His | | |
| | | | 100 | | | | | 105 | | | | | 110 | | |

<210> 995

<211> 924

<212> DNA

<213> Homo sapiens

<400> 995

cgggagctgg tggaccagga cgtgcagcct gcccgctacc acatcgccctt tgggcccgtg
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 gtggatggcg acgtgggtccc cgatgaccct gagatcctca tgcagcaggg agaattcctc
 120
 aactacgaca tgctcatcgg cgtcaaccag ggagagggcc tcaagttcgt ggaggactct
 180
 gcagagagcg aggacggtgt gtctgccagc gcctttgact tcaactgtctc caactttgtg
 240
 gacaacctgt atggctaccc ggaaggcaag gatgtgcttc gggagaccat caagtttatg
 300
 tacacagact gggccgaccg ggacaatggc gaaatgcgcc gcaaaaccct gctggcgctc
 360
 ttactgacc accaatgggt ggcaccagct gtggccactg ccaagctgca cgccgactac
 420

cagtctcccg tctactttta caccttctac caccactgcc aggcggaggg ccggcctgag
 480
 tgggcagatg cggcgacacgg ggatgaactg ccctatgtct ttggcgtgcc catggtgggt
 540
 gccaccgacc tcttccctg taacttctcc aagaatgacg tcatgctcag tgccgtggtc
 600
 atgacctact ggaccaactt cgccaagact ggggacccca accagccggt gccgcaggat
 660
 accaagttca tccacaccaa gcccaatcgc ttcgaggagg tgggtgtggag caaattcaac
 720
 agcaaggaga agcagtatct gcacataggg ctgaagccac gcgtgcgtga caactaccgc
 780
 gccacaagg tggccttctg gctggagctc gtgccccacc tgcacaacct gcacacggag
 840
 ctcttcacca ccaccaacgg cctgcctccc tacgccacgc gctggccgcc tcgtcccccc
 900
 gctggcgccc cgggcacacg ccgg
 924

<210> 996

<211> 308

<212> PRT

<213> Homo sapiens

<400> 996

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Glu | Leu | Val | Asp | Gln | Asp | Val | Gln | Pro | Ala | Arg | Tyr | His | Ile | Ala |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Phe | Gly | Pro | Val | Val | Asp | Gly | Asp | Val | Val | Pro | Asp | Asp | Pro | Glu | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Met | Gln | Gln | Gly | Glu | Phe | Leu | Asn | Tyr | Asp | Met | Leu | Ile | Gly | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asn | Gln | Gly | Glu | Gly | Leu | Lys | Phe | Val | Glu | Asp | Ser | Ala | Glu | Ser | Glu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asp | Gly | Val | Ser | Ala | Ser | Ala | Phe | Asp | Phe | Thr | Val | Ser | Asn | Phe | Val |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Asp | Asn | Leu | Tyr | Gly | Tyr | Pro | Glu | Gly | Lys | Asp | Val | Leu | Arg | Glu | Thr |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Ile | Lys | Phe | Met | Tyr | Thr | Asp | Trp | Ala | Asp | Arg | Asp | Asn | Gly | Glu | Met |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Arg | Arg | Lys | Thr | Leu | Leu | Ala | Leu | Phe | Thr | Asp | His | Gln | Trp | Val | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Pro | Ala | Val | Ala | Thr | Ala | Lys | Leu | His | Ala | Asp | Tyr | Gln | Ser | Pro | Val |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Tyr | Phe | Tyr | Thr | Phe | Tyr | His | His | Cys | Gln | Ala | Glu | Gly | Arg | Pro | Glu |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | |
| Trp | Ala | Asp | Ala | Ala | His | Gly | Asp | Glu | Leu | Pro | Tyr | Val | Phe | Gly | Val |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Pro | Met | Val | Gly | Ala | Thr | Asp | Leu | Phe | Pro | Cys | Asn | Phe | Ser | Lys | Asn |
| | | 180 | | | | | 185 | | | | | | 190 | | |
| Asp | Val | Met | Leu | Ser | Ala | Val | Val | Met | Thr | Tyr | Trp | Thr | Asn | Phe | Ala |
| | 195 | | | | | 200 | | | | | | 205 | | | |
| Lys | Thr | Gly | Asp | Pro | Asn | Gln | Pro | Val | Pro | Gln | Asp | Thr | Lys | Phe | Ile |
| | 210 | | | | 215 | | | | | | 220 | | | | |
| His | Thr | Lys | Pro | Asn | Arg | Phe | Glu | Glu | Val | Val | Trp | Ser | Lys | Phe | Asn |

225 230 235 240
 Ser Lys Glu Lys Gln Tyr Leu His Ile Gly Leu Lys Pro Arg Val Arg
 245 250 255
 Asp Asn Tyr Arg Ala Asn Lys Val Ala Phe Trp Leu Glu Leu Val Pro
 260 265 270
 His Leu His Asn Leu His Thr Glu Leu Phe Thr Thr Thr Thr Arg Leu
 275 280 285
 Pro Pro Tyr Ala Thr Arg Trp Pro Pro Arg Pro Pro Ala Gly Ala Pro
 290 295 300
 Gly Thr Arg Arg
 305

<210> 997

<211> 320

<212> DNA

<213> Homo sapiens

<400> 997

aaatttaata ccatagcctt ctcttggttg atccttctag gcatgagtta tggcattaaa
 60
 acgggcatcc atcttggtgt cgatatcgta cttaatgccg tgcctaaacg agtatcaaga
 120
 gccttgtctt tggtcgggtgc ctttgccgct attatgtacg gtctcattct acttgattct
 180
 acctggttag ccttactcgg tatcgatgta cgaggtggtg ccatcgaata ttgggcgaag
 240
 atgttcaaaa taggtattgg tactgaagag cttcggtacc ctatctttat gcaagatatg
 300
 tttgatttgc gcccacgcgt
 320

<210> 998

<211> 106

<212> PRT

<213> Homo sapiens

<400> 998

Lys Phe Asn Thr Ile Ala Phe Ser Trp Leu Ile Leu Leu Gly Met Ser
 1 5 10 15
 Tyr Gly Ile Lys Thr Gly Ile His Leu Gly Val Asp Ile Val Leu Asn
 20 25 30
 Ala Val Pro Lys Arg Val Ser Arg Ala Leu Ser Leu Phe Gly Ala Phe
 35 40 45
 Ala Ala Ile Met Tyr Gly Leu Ile Leu Leu Asp Ser Thr Trp Leu Ala
 50 55 60
 Leu Leu Gly Ile Asp Val Arg Gly Gly Ala Ile Glu Tyr Trp Ala Lys
 65 70 75 80
 Met Phe Lys Ile Gly Ile Gly Thr Glu Glu Leu Arg Tyr Pro Ile Phe
 85 90 95
 Met Gln Asp Met Phe Asp Leu Arg Pro Arg
 100 105

<210> 999

<211> 401

<212> DNA

<213> Homo sapiens

<400> 999

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60
acatctgagc aagagcttca tcgggtgttta tctctactca gaaggcaagt ttgtgaccag
120
caactatctc aatcgtggct acaaggacat tctgagctat gcagacgatg ctagtctttt
180
gcaaaagcct ccagcagtgg cttcagatga tctggataca ggtctcttga agagggcctt
240
ggatgagtgg gtggctgatg ctaagaacca cattctcaat actgaaaact tcttttagcgg
300
gtcaaccggg ctcaacattg acagtttcta cgtctttggg gaccaagaca tctgctggca
360
gttggcagct attctgagc agagcatgaa tcgggaattg t
401

<210> 1000

<211> 115

<212> PRT

<213> Homo sapiens

<400> 1000

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Val | His | Leu | Ser | Lys | Ser | Phe | Ile | Gly | Val | Tyr | Leu | Tyr | Ser | Glu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Lys | Phe | Val | Thr | Ser | Asn | Tyr | Leu | Asn | Arg | Gly | Tyr | Lys | Asp | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Ser | Tyr | Ala | Asp | Asp | Ala | Ser | Leu | Leu | Gln | Lys | Pro | Pro | Ala | Val |
| | | | 35 | | | | | 40 | | | | | 45 | | |
| Ala | Ser | Asp | Asp | Leu | Asp | Thr | Gly | Leu | Leu | Lys | Arg | Ala | Leu | Asp | Glu |
| | | | 50 | | | | 55 | | | | | 60 | | | |
| Trp | Val | Ala | Asp | Ala | Lys | Asn | His | Ile | Leu | Asn | Thr | Glu | Asn | Phe | Phe |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Ser | Gly | Ser | Thr | Gly | Leu | Asn | Ile | Asp | Ser | Phe | Tyr | Val | Phe | Gly | Asp |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Gln | Asp | Ile | Cys | Trp | Gln | Leu | Ala | Ala | Ile | Leu | Lys | Gln | Ser | Met | Asn |
| | | | 100 | | | | | 105 | | | | | | 110 | |
| Arg | Glu | Leu | | | | | | | | | | | | | |
| | | | 115 | | | | | | | | | | | | |

<210> 1001

<211> 351

<212> DNA

<213> Homo sapiens

<400> 1001

cgcggtattg caatgcgcct ggtgccgaat gctaaacctg ctcttgattg cccggtactg
60
ttcccttatg cccctaattgc ggtgattggt ggcttcctgg ccactaccgt tggttcaatt
120
atcggtatga ttgtcttccc gctgtttggg ctggcgatga tccttcgggg tctgctaact
180

aacttcttcg ctggtggtgc cgctggagtc tttggcaacg cgatgggagg acgtaaaggg
 240
 gcaattattg gcggcgtagt gcacgggctg tttatcaccc tgttaccagc gatgctaata
 300
 cccttactgg aaaccttcgg cttcaaagge gtcaccttca gtgattccga t
 351

<210> 1002

<211> 117

<212> PRT

<213> Homo sapiens

<400> 1002

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Gly | Ile | Ala | Met | Arg | Leu | Val | Pro | Asn | Ala | Lys | Pro | Ala | Leu | Asp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Cys | Pro | Val | Leu | Phe | Pro | Tyr | Ala | Pro | Asn | Ala | Val | Ile | Val | Gly | Phe |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Ala | Thr | Thr | Val | Gly | Ser | Ile | Ile | Gly | Met | Ile | Val | Phe | Pro | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Phe | Gly | Leu | Ala | Met | Ile | Leu | Pro | Gly | Leu | Leu | Thr | Asn | Phe | Phe | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gly | Gly | Ala | Ala | Gly | Val | Phe | Gly | Asn | Ala | Met | Gly | Gly | Arg | Lys | Gly |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Ala | Ile | Ile | Gly | Gly | Val | Val | His | Gly | Leu | Phe | Ile | Thr | Leu | Leu | Pro |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Ala | Met | Leu | Ile | Pro | Leu | Leu | Glu | Thr | Phe | Gly | Phe | Lys | Gly | Val | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Phe | Ser | Asp | Ser | Asp | | | | | | | | | | | |
| | | | 115 | | | | | | | | | | | | |

<210> 1003

<211> 444

<212> DNA

<213> Homo sapiens

<400> 1003

acgcgtcctc cttagtcga tcgcgaatat gataggcgaa gcgacgtgat ggtgtgacgc
 60
 acgagcactg ccccatctcc taggcttagg gttatgcaga ctcccatcga cgctacctcc
 120
 acccccgcacat ggggcacact ctccggccta aagtccegcgt tcgctgacgg gccacataaa
 180
 ctgcgccgtt tgttcgacgc cgaccctcac cgcgctgagc gctacacctt tgacgtcgcg
 240
 gatttgcacg tcgatttata gaagaacctc cttaccgacg agattcgtga cgctctcctc
 300
 gaactggctg cgcagatgcg cgtcaccgag cgtcgtgacg cgatgtatgc cggtgagcac
 360
 atcaacgtca ccgaggaccg cgccgtcctc cataccgcgc tgtgtcgtcc ccgcaactgac
 420
 gagctgcatg ttgacgggtca ggat
 444

<210> 1004

<211> 117

<212> PRT

<213> Homo sapiens

<400> 1004

```

Met Gln Thr Pro Ile Asp Ala Thr Ser Thr Pro Ala Trp Gly Thr Leu
 1           5           10           15
Ser Gly Leu Lys Ser Arg Phe Ala Asp Gly Pro His Lys Leu Arg Arg
      20           25           30
Leu Phe Asp Ala Asp Pro His Arg Ala Glu Arg Tyr Thr Phe Asp Val
      35           40           45
Ala Asp Leu His Val Asp Leu Ser Lys Asn Leu Leu Thr Asp Glu Ile
      50           55           60
Arg Asp Ala Leu Leu Glu Leu Ala Ala Gln Met Arg Val Thr Glu Arg
      65           70           75           80
Arg Asp Ala Met Tyr Ala Gly Glu His Ile Asn Val Thr Glu Asp Arg
      85           90           95
Ala Val Leu His Thr Ala Leu Cys Arg Pro Arg Thr Asp Glu Leu His
      100           105           110
Val Asp Gly Gln Asp
      115

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<210> 1005

<211> 299

<212> DNA

<213> Homo sapiens

<400> 1005

```

ccatggccat tcctctggtg actgcatcca gtccgatgga tttaaacc cccaatgtgc
60
tggtgactcc caagtttaca cctccagcca gggcttctct cctgggtttg catacccacc
120
tatctatctg ccttagccac tcgtgtctga cgagcacctc acacctccag aggctcctca
180
tttcttccca tgctgcttc tcccacactc ctccctctca catgagggca acttcacct
240
cccagttgct caggcccaa acctccatca gttttgactc ttctctcgca cactactcg
299

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<210> 1006

<211> 99

<212> PRT

<213> Homo sapiens

<400> 1006

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Met Ala Ile Pro Leu Val Thr Ala Ser Ser Pro Met Asp Leu Asn Thr
 1           5           10           15
Pro Asn Val Leu Val Thr Pro Lys Phe Thr Pro Pro Ala Arg Ala Ser
      20           25           30
Leu Leu Gly Leu His Thr His Leu Ser Ile Cys Leu Ser His Ser Cys
      35           40           45
Leu Thr Ser Thr Ser His Leu Gln Arg Leu Leu Ile Ser Ser His Ala
      50           55           60
Cys Phe Ser His Thr Pro Pro Ser His Met Arg Ala Thr Ser Ser Ser

```


ngccttcacg gctgntatgc ctggcctcat ccccatccct ggcacccgtg acgatagcca
 60
 cattccactg gtgtttcccc aggaaagcca accctacctg catctcagca gagcttccac
 120
 ggagttggaa ccccgctccg agaggggtgtg ggctcagggg ccaggggtca cacaaactcc
 180
 agaaggagga cgtagttggt ttgcaaggct gtcctttgcc ctggttgaat aaccttcggt
 240
 ctgccccgag aggaacgtgg gcattaggct gcacccgcag gaagccatgt attttctgag
 300
 aaacttgccc catggtgcag atct
 324

<210> 1010

<211> 104

<212> PRT

<213> Homo sapiens

<400> 1010

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Gly | Gln | Val | Ser | Gln | Lys | Ile | His | Gly | Phe | Leu | Arg | Val | Gln | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asn | Ala | His | Val | Pro | Leu | Gly | Ala | Asp | Arg | Arg | Leu | Phe | Asn | Gln | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Lys | Gly | Gln | Pro | Cys | Lys | Pro | Thr | Thr | Ser | Ser | Phe | Trp | Ser | Leu | Cys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asp | Pro | Trp | Pro | Leu | Ser | Pro | His | Pro | Leu | Gly | Ala | Gly | Phe | Gln | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Arg | Gly | Ser | Ser | Ala | Glu | Met | Gln | Val | Gly | Leu | Ala | Phe | Leu | Gly | Lys |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| His | Gln | Trp | Asn | Val | Ala | Ile | Val | Thr | Gly | Ala | Arg | Asp | Gly | Asp | Glu |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Ala | Arg | His | Xaa | Ser | His | Glu | Gly | | | | | | | | |
| | | | | | | 100 | | | | | | | | | |

<210> 1011

<211> 330

<212> DNA

<213> Homo sapiens

<400> 1011

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 gatccctgcg gctgcctgca ctctggacca cgagctctga gagcagcagg ttgagggccg
 120
 gtggggcagca gctcggaggc tccgcgaggt gcaggagacg caggcatggc cggtgagctg
 180
 actcctgagg aggaggccca gtacaaaaag gctttctccg cggttgacac ggatggaaac
 240
 ggcaccatca atgccagga gctgggcgcg gcgctgaagg ccacgggcaa gaacctctcg
 300
 gaggccagc taaagaaact catctccgag
 330

<210> 1012

<211> 55
 <212> PRT
 <213> Homo sapiens

<400> 1012
 Met Ala Gly Glu Leu Thr Pro Glu Glu Glu Ala Gln Tyr Lys Lys Ala
 1 5 10 15
 Phe Ser Ala Val Asp Thr Asp Gly Asn Gly Thr Ile Asn Ala Gln Glu
 20 25 30
 Leu Gly Ala Ala Leu Lys Ala Thr Gly Lys Asn Leu Ser Glu Ala Gln
 35 40 45
 Leu Lys Lys Leu Ile Ser Glu
 50 55

<210> 1013
 <211> 432
 <212> DNA
 <213> Homo sapiens

<400> 1013
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 60
 tggcggcgctc tcctcgtcgc cgggagcggc gaggaaggat taacgatgac cagcgacgtc
 120 -
 cccgggattg gctcgaacgc cgccactttg gcgcgttccc aggctcgcag tgacaaggtc
 180
 gaggetgatt tggcgggtcca tcccgacaag tggcgcattc tggggggggga ccgtcctact
 240
 ggcagcctgc acatcgggtca ctacttcggg tcgctggcga atcgggtacg cgtgcagaac
 300
 aagggcattg agtctttcct tgctcgtcgt gactaccagg ttatctatga ccgcggggggg
 360
 ggtggtgacc tgcaggccaa tggtatgtcg aatgtcgccg attacctggc aatcggcatt
 420
 gacccaacgc gt
 432

<210> 1014
 <211> 109
 <212> PRT
 <213> Homo sapiens

<400> 1014
 Met Thr Ser Asp Val Pro Gly Ile Gly Ser Asn Ala Ala Thr Leu Ala
 1 5 10 15
 Arg Ser Gln Ala Arg Ser Asp Lys Val Glu Ala Asp Leu Ala Val His
 20 25 30
 Pro Asp Lys Trp Arg Ile Leu Gly Ser Asp Arg Pro Thr Gly Ser Leu
 35 40 45
 His Ile Gly His Tyr Phe Gly Ser Leu Ala Asn Arg Val Arg Val Gln
 50 55 60
 Asn Lys Gly Ile Glu Ser Phe Leu Val Val Ala Asp Tyr Gln Val Ile
 65 70 75 80
 Tyr Asp Arg Gly Gly Gly Gly Asp Leu Gln Ala Asn Val Met Ser Asn

85 90 95
 Val Ala Asp Tyr Leu Ala Ile Gly Ile Asp Pro Thr Arg
 100 105

<210> 1015
 <211> 467
 <212> DNA
 <213> Homo sapiens

<400> 1015
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 120
 cagcaaaaga agattgaagc agagtgtcct aaactacgga aggaaattgt agaggctcag
 180
 tctggagtta agttgagga acagcgtcat gaagaggatg atgaagaaga ggaagaggaa
 240
 gacaagacag taaaatatag caatttgccc aattacctgc ttggtagtct gagtactgat
 300
 tttggggtag atacctcttt attgtcaagc caattggagc ttcattccag agaagagaaa
 360
 atcaaccaaa ttatattatt gaaagatatt atttacaagg taaaaactgt tttcaataat
 420
 gagtttgacg ctgcatataa acaaaaagag tttgaaattg cacgcgt
 467

<210> 1016
 <211> 155
 <212> PRT
 <213> Homo sapiens

<400> 1016
 Xaa Asn Ser Met Ala Val Lys Gly Arg Ala Leu Lys Cys Phe His Ile
 1 5 10 15
 Pro Cys Val Val Glu Asn Phe Pro Met Lys Ala Arg Thr Val Glu Glu
 20 25 30
 Leu Lys Glu Leu Glu Arg Val Leu Gln Gln Lys Lys Ile Glu Ala Glu
 35 40 45
 Cys Leu Lys Leu Arg Lys Glu Ile Val Glu Ala Gln Ser Gly Val Lys
 50 55 60
 Leu Ile Lys Gln Arg His Glu Glu Asp Asp Glu Glu Glu Glu Glu Glu
 65 70 75 80
 Asp Lys Thr Val Lys Tyr Ser Asn Leu Pro Asn Tyr Leu Leu Gly Ser
 85 90 95
 Leu Ser Thr Asp Phe Gly Val Asp Thr Ser Leu Leu Ser Ser Gln Leu
 100 105 110
 Glu Leu His Ser Arg Glu Glu Lys Ile Asn Gln Ile Ile Leu Leu Lys
 115 120 125
 Asp Ile Ile Tyr Lys Val Lys Thr Val Phe Asn Asn Glu Phe Asp Ala
 130 135 140
 Ala Tyr Lys Gln Lys Glu Phe Glu Ile Ala Arg
 145 150 155

<210> 1017
 <211> 335
 <212> DNA
 <213> Homo sapiens

<400> 1017
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 60
 aacattaaag tgggtcgccc cggctacttt gcggagggtca tggatttcta tgcgcattat
 120
 ctgaaggggtg cggttacccg tttccgtccg aattttattg tgcaggataa tacggggccgt
 180
 tggcgtgttc agtcgtcgtg gccgcagccg aatcgcactg ttacttttgc gggacccccg
 240
 ggcattgtcc gctacgggtac gacgttggtg gccgcacgc atgggaatgg tcaggctatt
 300
 ccgcaggcgg atgcacagtc tcttaaccgc gagaa
 335

<210> 1018
 <211> 105
 <212> PRT
 <213> Homo sapiens

<400> 1018
 Met Trp Asn His Val Arg Ala Asn Glu Lys Asp Ala Lys Gly Asn Ile
 1 5 10 15
 Lys Val Gly Arg Pro Gly Tyr Phe Ala Glu Val Met Asp Phe Tyr Ala
 20 25 30
 His Tyr Leu Lys Gly Ala Val Thr Arg Phe Arg Pro Asn Phe Ile Val
 35 40 45
 Gln Asp Asn Thr Gly Arg Trp Arg Val Gln Ser Ser Trp Pro Gln Pro
 50 55 60
 Asn Arg Thr Val Thr Phe Ala Gly Pro Arg Gly Ile Val Arg Tyr Gly
 65 70 75 80
 Thr Thr Leu Ala Ala Arg Thr His Gly Asn Gly Gln Ala Ile Pro Gln
 85 90 95
 Ala Asp Ala Gln Ser Leu Asn Arg Glu
 100 105

<210> 1019
 <211> 454
 <212> DNA
 <213> Homo sapiens

<400> 1019
 acgcgtgaag gggtagtcgt agtagaagtc gtccacaaac acgggccccg gcaggtccag
 60
 ctctggagcc tctctctcaa tggcgttgcc catggtgcct ggcttgggtg atgaggcggg
 120
 tgaagggcgt ggggccaggt ggtgcgggat gaagtcagcc tcgttgaaga gtcgtgggt
 180
 ggaggagccg ctgcctgagc cttcagggcc cagtgtgccc agggggccacc gacagagtgg
 240

cagagagcag gtgacttcct ggcactgcgg agcgaggacc cggagaagta cttcctcaat
 300
 ggtggctgga ccatccagtg gaacggggac taccaggtgg cagggaccac cttcacatac
 360
 gcacgcaggg gcaactggga gaacctcacg tccccgggtc ccaccaagga gcctgtctgg
 420
 atccagctgc tgttccagga gagcaaccct gggg
 454

<210> 1020

<211> 125

<212> PRT

<213> Homo sapiens

<400> 1020

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ala | Leu | Pro | Met | Val | Pro | Gly | Leu | Gly | Asp | Glu | Ala | Gly | Glu | Gly |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Arg | Gly | Ala | Arg | Trp | Cys | Gly | Met | Lys | Ser | Ala | Ser | Leu | Lys | Ser | Ser |
| | | | 20 | | | | | 25 | | | | 30 | | | |
| Trp | Leu | Glu | Glu | Pro | Leu | Pro | Glu | Pro | Ser | Gly | Pro | Ser | Val | Pro | Arg |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | His | Arg | Gln | Ser | Gly | Arg | Glu | Gln | Val | Thr | Ser | Trp | His | Cys | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Arg | Thr | Arg | Arg | Ser | Thr | Ser | Ser | Met | Val | Ala | Gly | Pro | Ser | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Gly | Thr | Gly | Thr | Thr | Arg | Trp | Gln | Gly | Pro | Pro | Ser | His | Thr | His | Ala |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Gly | Ala | Thr | Gly | Arg | Thr | Ser | Arg | Pro | Arg | Val | Pro | Pro | Arg | Ser | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ser | Gly | Ser | Ser | Cys | Cys | Ser | Arg | Arg | Ala | Thr | Leu | Gly | | | |
| | | | 115 | | | | | 120 | | | | 125 | | | |

<210> 1021

<211> 366

<212> DNA

<213> Homo sapiens

<400> 1021

cagctgtgtc gtgacctcct gtagaccaga gagaggtaga gcatgaaaaa tgctcattga
 60
 gccgagatta tctgacagga ccaaagcata taaagttgac tgaagcagga gcaaacacgc
 120
 tggttgaggg tcaagtgtg gggcagcagc aacaacaaac caaaaaaag ccctttgaac
 180
 tcccttaatg ttgcccaaag gttctggtag agaacaagtc acatgcctaa gaaggtcttt
 240
 taaagggcac tcttgagtt tcagcatttg gtccggggaa ttgcacaagg ctctgcttaa
 300
 atgcagagct ctttctagca tcttcattt caaggcggaa aaactgagct tggcgaggaa
 360
 ccctgt
 366

<210> 1022

<211> 109
 <212> PRT
 <213> Homo sapiens

<400> 1022
 Met Lys Met Leu Glu Arg Ala Leu His Leu Ser Arg Ala Leu Cys Asn
 1 5 10 15
 Ser Pro Asp Gln Met Leu Lys Leu Gln Glu Cys Pro Leu Lys Asp Leu
 20 25 30
 Leu Arg His Val Thr Cys Ser Leu Pro Glu Pro Leu Gly Asn Ile Lys
 35 40 45
 Gly Val Gln Arg Ala Phe Phe Trp Phe Val Val Ala Ala Ala Pro Ala
 50 55 60
 Leu Asp Pro Gln Pro Ala Cys Leu Leu Leu Leu Gln Ser Thr Leu Tyr
 65 70 75 80
 Ala Leu Val Leu Ser Asp Asn Leu Gly Ser Met Ser Ile Phe His Ala
 85 90 95
 Leu Pro Leu Ser Gly Leu Gln Glu Val Thr Thr Gln Leu
 100 105

<210> 1023
 <211> 426
 <212> DNA
 <213> Homo sapiens

<400> 1023
 gccgggcttc ggggtctctga agcgatcaac ctggccgact cggatgcaga tctggacggc
 60
 ggcacccctga ccatacagca gaccaagttt ggcaagtccc gcatgggtgcc gctacacccc
 120
 agcgtgatcg gtccgatggc agcctaccgg gccttgccgc gccagtacgt gcctgcgaag
 180
 ccgcagatga cattcttcgt gggctcgcgt ggcgatgcacc ggggtgaacc gctgggagat
 240
 aggcaggtgc atcgagtgtt ctgtcagctg cgcgagcaat tgggttggat cgatcgcggc
 300
 ggccatggcc gaccgcggt gcatgacctg cgccatagct tcgccgtgag acggatgatc
 360
 ctgtggcacc agcagggagc gaaccttgac caacgaatgc tggccctgtc cacgtacatg
 420
 ggccac
 426

<210> 1024
 <211> 142
 <212> PRT
 <213> Homo sapiens

<400> 1024
 Ala Gly Leu Arg Val Ser Glu Ala Ile Asn Leu Ala Asp Ser Asp Ala
 1 5 10 15
 Asp Leu Asp Gly Gly Ile Leu Thr Ile Gln Gln Thr Lys Phe Gly Lys
 20 25 30
 Ser Arg Met Val Pro Leu His Pro Ser Val Ile Gly Pro Met Ala Ala

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 35 | | | | | 40 | | | | 45 | | | | | |
| Tyr | Arg | Ala | Leu | Arg | Arg | Gln | Tyr | Val | Pro | Ala | Lys | Pro | Gln | Met | Thr |
| 50 | | | | | | 55 | | | | | 60 | | | | |
| Phe | Phe | Val | Gly | Ser | Arg | Gly | Val | His | Arg | Gly | Glu | Pro | Leu | Gly | Asp |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Arg | Gln | Val | His | Arg | Val | Phe | Cys | Gln | Leu | Arg | Glu | Gln | Leu | Gly | Trp |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Ile | Asp | Arg | Gly | Gly | His | Gly | Arg | Pro | Arg | Val | His | Asp | Leu | Arg | His |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Ser | Phe | Ala | Val | Arg | Arg | Met | Ile | Leu | Trp | His | Gln | Gln | Gly | Ala | Asn |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Leu | Asp | Gln | Arg | Met | Leu | Ala | Leu | Ser | Thr | Tyr | Met | Gly | His | | |
| | 130 | | | | | 135 | | | | | 140 | | | | |

<210> 1025

<211> 518

<212> DNA

<213> Homo sapiens

<400> 1025

```

naccgctgggt gcgcgcaggt ggccgcgcgg tccctttgct ccctgcgcaa gccggagggg
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tgcccagaag gctaccacta gcctcagcga aggggtgcgc ctgagagccg ggtagcctcg
120
gatagcggcg ctgcgtacgc gatgatggat gagccgtgggt gggaagggcg cgtcgccctcg
180
gacgtccact gcaccctgcg cgagaaggaa ctgaagctgc ccaccttccg agcccactcc
240
ccactcctga agagccgccc gttcttcgtg gacatcctga ccctgctgag cagccactgc
300
cagctctgcc ctgcagcccc gcacctggcc gtctacctgc tggaccactt catggatcgc
360
tacaacgtca ccacctccaa gcagctctac accgtggccg tctcctgcct cctgcttgca
420
agtaagtctg aggatcggga agaccacgtc cccaagtgg agcaaataaa cagcacgagg
480
atcctgagca gccagaactt caccctcacc aagaagga
518

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<210> 1026

<211> 125

<212> PRT

<213> Homo sapiens

<400> 1026

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Met | Asp | Glu | Pro | Trp | Trp | Glu | Gly | Arg | Val | Ala | Ser | Asp | Val | His |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Cys | Thr | Leu | Arg | Glu | Lys | Glu | Leu | Lys | Leu | Pro | Thr | Phe | Arg | Ala | His |
| | | | 20 | | | | | 25 | | | | 30 | | | |
| Ser | Pro | Leu | Leu | Lys | Ser | Arg | Arg | Phe | Phe | Val | Asp | Ile | Leu | Thr | Leu |
| | | 35 | | | | 40 | | | | 45 | | | | | |
| Leu | Ser | Ser | His | Cys | Gln | Leu | Cys | Pro | Ala | Ala | Arg | His | Leu | Ala | Val |
| | 50 | | | | 55 | | | | 60 | | | | | | |
| Tyr | Leu | Leu | Asp | His | Phe | Met | Asp | Arg | Tyr | Asn | Val | Thr | Thr | Ser | Lys |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 65 | | 70 | | 75 | | 80 | | | | | | | | | |
| Gln | Leu | Tyr | Thr | Val | Ala | Val | Ser | Cys | Leu | Leu | Ala | Ser | Lys | Phe | |
| | | 85 | | 90 | | 95 | | | | | | | | | |
| Glu | Asp | Arg | Glu | Asp | His | Val | Pro | Lys | Leu | Glu | Gln | Ile | Asn | Ser | Thr |
| | | 100 | | 105 | | 110 | | | | | | | | | |
| Arg | Ile | Leu | Ser | Ser | Gln | Asn | Phe | Thr | Leu | Thr | Lys | Lys | | | |
| | | 115 | | 120 | | 125 | | | | | | | | | |

<210> 1027

<211> 465

<212> DNA

<213> Homo sapiens

<400> 1027

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ggcccaaaag tcatcaaaga aaagctgaca caggagctga aggaccacaa cgccaccagc
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atcctgcagc agctgccgct gctcaaggcc atgcgggaaa agccagccgg aggcattcct
120
gtgctgggca gcctggtgaa caccngtcct gaagcacatc atnnctggct gaaggctcatc
180
acagctaaca tcttcagct gcaggtgaag cctcgggcca atgaccagga gctgctagtc
240
aagatcccc tggacatggt ggctggattc aacacgcccc tggtaagac catcgtggag
300
ttccacatga cgactgaggc ccaagccacc atccgcatgg acaccagtgc aagtggcccc
360
accgcctgg tctcagtga ctgtgccacc agccatggga gcctgcgcat ccaactgctg
420
cataagctct ccttcaagct gaacgcctca gctaagcagg tcatg
465

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<210> 1028

<211> 155

<212> PRT

<213> Homo sapiens

<400> 1028

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Pro | Lys | Val | Ile | Lys | Glu | Lys | Leu | Thr | Gln | Glu | Leu | Lys | Asp | His |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Asn | Ala | Thr | Ser | Ile | Leu | Gln | Gln | Leu | Pro | Leu | Leu | Lys | Ala | Met | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Glu | Lys | Pro | Ala | Gly | Gly | Ile | Pro | Val | Leu | Gly | Ser | Leu | Val | Asn | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Xaa | Pro | Glu | Ala | His | His | Xaa | Trp | Leu | Lys | Val | Ile | Thr | Ala | Asn | Ile |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Leu | Gln | Leu | Gln | Val | Lys | Pro | Ser | Ala | Asn | Asp | Gln | Glu | Leu | Leu | Val |
| 65 | | | | 70 | | | | 75 | | | | | 80 | | |
| Lys | Ile | Pro | Leu | Asp | Met | Val | Ala | Gly | Phe | Asn | Thr | Pro | Leu | Val | Lys |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Thr | Ile | Val | Glu | Phe | His | Met | Thr | Thr | Glu | Ala | Gln | Ala | Thr | Ile | Arg |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Met | Asp | Thr | Ser | Ala | Ser | Gly | Pro | Thr | Arg | Leu | Val | Leu | Ser | Asp | Cys |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ala | Thr | Ser | His | Gly | Ser | Leu | Arg | Ile | Gln | Leu | Leu | His | Lys | Leu | Ser |

130 135 140
 Phe Lys Leu Asn Ala Ser Ala Lys Gln Val Met
 145 150 155

<210> 1029
 <211> 479
 <212> DNA
 <213> Homo sapiens

<400> 1029
 acgcgtgaag ggaaactgtc ctcacagatg agtgtgaggg ttcaaaaaga tactgcctgc
 60
 caagcactgg ccacaaatgc ctggcagaac aactgctcat aagtgtgtag ttgttgttat
 120
 tattactaac caagtgagga aaattatccc tagcagggtcc agatgaccgt gtgcatgaat
 180
 cacagggaga ccctaaagga tttcctcctg taaagctctt tccccaccta tttgctactg
 240
 cctgaaattg ctttagcagg aaacagaatc tctcatgccca caagtgagca taaagttaa
 300
 aatgtaaattg ctctaggaaa aggcaactca tctcttaaat tctctccaag gttcaaattcc
 360
 tttccaaaga ggaggctttt gtataagtca gaaggcccag tccctgaagg tcatggaaaa
 420
 ggtcatgaca cacggagggg gtgtcaaagg gagactggga aactgaagat gaagctagc
 479

<210> 1030
 <211> 110
 <212> PRT
 <213> Homo sapiens

<400> 1030
 Met Ser Cys Leu Phe Leu Glu His Leu His Phe Lys Leu Tyr Ala His
 1 5 10 15
 Leu Trp His Glu Arg Phe Cys Phe Leu Leu Lys Gln Phe Gln Ala Val
 20 25 30
 Ala Asn Arg Trp Gly Lys Ser Phe Thr Gly Gly Asn Pro Leu Gly Ser
 35 40 45
 Pro Cys Asp Ser Cys Thr Arg Ser Ser Gly Pro Ala Arg Asp Asn Phe
 50 55 60
 Pro His Leu Val Ser Asn Asn Asn Asn Asn Tyr Thr Leu Met Ser Ser
 65 70 75 80
 Cys Ser Ala Arg His Leu Trp Pro Val Leu Gly Arg Gln Tyr Leu Phe
 85 90 95
 Glu Pro Ser His Ser Ser Val Arg Thr Val Ser Leu His Ala
 100 105 110

<210> 1031
 <211> 322
 <212> DNA
 <213> Homo sapiens

<400> 1031

nacgcgtttt atgtcagcgt tgaattggaa gacggcaagt ctatcgccat gctgccccag
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 120
 atcgacggcg aaaccgatgt acccgacccg gcattccaggg cgcaagccaa cgatgtgcat
 180
 ggggtggagcg tcgtcgtcga cccgctcgcc tatcaatggc gacaccctaa ctggcaaggc
 240
 cgcccctggc atgaggcggt gatttacgag ctgcacgttg gcgtactggg cgggtacgcc
 300
 gctgttgaac agcaactgcc gc
 322

<210> 1032

<211> 107

<212> PRT

<213> Homo sapiens

<400> 1032

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Ala | Phe | Tyr | Val | Ser | Val | Glu | Leu | Glu | Asp | Gly | Lys | Ser | Ile | Ala |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Met | Leu | Pro | Gln | Ala | Asp | Gly | Trp | Phe | Glu | Val | Glu | Val | Lys | Cys | Pro |
| | | | 20 | | | | 25 | | | | | | 30 | | |
| Ala | Gly | Thr | His | Tyr | Arg | Tyr | Asn | Ile | Asp | Gly | Glu | Thr | Asp | Val | Pro |
| | | | 35 | | | | 40 | | | | | | 45 | | |
| Asp | Pro | Ala | Ser | Arg | Ala | Gln | Ala | Asn | Asp | Val | His | Gly | Trp | Ser | Val |
| | | | 50 | | | | 55 | | | | | 60 | | | |
| Val | Val | Asp | Pro | Leu | Ala | Tyr | Gln | Trp | Arg | His | Pro | Asn | Trp | Gln | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Arg | Pro | Trp | His | Glu | Ala | Val | Ile | Tyr | Glu | Leu | His | Val | Gly | Val | Leu |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Gly | Gly | Tyr | Ala | Ala | Val | Glu | Gln | Gln | Leu | Pro | | | | | |
| | | | 100 | | | | | 105 | | | | | | | |

<210> 1033

<211> 579

<212> DNA

<213> Homo sapiens

<400> 1033

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 120
 aattcacatt caaatccatc acttttcaca taattgctgt taatatgaac gtcattgagtc
 180
 gttgttgctc gcggttgcca gtgggactcc ccatacacgg cagcgagaca tggaggaacc
 240
 atgggactaa ggatcggtgt cgccgctgat ccggcggcag tcgagtacaa ggatgtcgtc
 300
 aaggctgacc tggaagcgga ttgcgcagtc gatgacgtta tcgacgtcgg cgttcaggct
 360
 ggtgacgaca ccctctaccc gcgcacgggc atcaagggag ctcacgtcat caaggacgga
 420

aaagccgatac gaggaatctt tttctgcggc accgggatgg gcatggccat cacggccaac
 480
 aaggtgccag gcattcgcg ctcacccgcc cacgactcct tctccgtaga gcggtcatc
 540
 atgtccaacg acgcccacgt gctatgcctc ggccaacgc
 579

<210> 1034
 <211> 113
 <212> PRT
 <213> Homo sapiens

<400> 1034
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 20 25 30
 Val Ile Asp Val Gly Val Gln Ala Gly Asp Asp Thr Leu Tyr Pro Arg
 35 40 45
 Ile Gly Ile Lys Gly Ala His Val Ile Lys Asp Gly Lys Ala Asp Arg
 50 55 60
 Gly Ile Phe Phe Cys Gly Thr Gly Met Gly Met Ala Ile Thr Ala Asn
 65 70 75 80
 Lys Val Pro Gly Ile Arg Ala Cys Thr Ala His Asp Ser Phe Ser Val
 85 90 95
 Glu Arg Leu Ile Met Ser Asn Asp Ala His Val Leu Cys Leu Gly Gln
 100 105 110
 Arg

<210> 1035
 <211> 363
 <212> DNA
 <213> Homo sapiens

<400> 1035
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 60
 gtgtgtatan gaatgtgtgt atgtgtantg gaatgtgtgt gtgtantgga agctgtgtgc
 120
 atatgnaat gtctgtgtgc atgtacgnga atgtgcgcgt gtatggaatg tatctgtgta
 180
 tgtgtatgga ccgtttgtgt gattatgcaa tatgtccgtg tgtgcgtatg gagtgtctca
 240
 gtatggcatg tgtgtgtgta tctactgtgc gtctctgtgt gtgtantgac atgcatatgt
 300
 atagaaagcg tctgcgctgt gtgcatgtgt gtcagtatcg aacgagtcgg agatgtggta
 360
 atn
 363

<210> 1036
 <211> 121
 <212> PRT

<213> Homo sapiens

<400> 1036

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Ala | Cys | Asn | Val | Cys | Val | Cys | Met | Xaa | Pro | Cys | Leu | Cys | Val | Cys |
| 1 | | | 5 | | | | | 10 | | | | | 15 | | |
| Met | Xaa | Ile | Cys | Val | Cys | Ile | Xaa | Met | Cys | Val | Cys | Val | Xaa | Glu | Cys |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| Val | Cys | Val | Xaa | Glu | Ala | Val | Cys | Ile | Cys | Xaa | Cys | Leu | Cys | Ala | Cys |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Thr | Xaa | Met | Cys | Ala | Cys | Met | Glu | Cys | Ile | Cys | Val | Cys | Val | Trp | Thr |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Val | Cys | Val | Ile | Met | Gln | Tyr | Val | Arg | Val | Cys | Val | Trp | Ser | Val | Ser |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Val | Trp | His | Val | Cys | Val | Tyr | Leu | Leu | Cys | Val | Ser | Val | Cys | Val | Xaa |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Thr | Cys | Ile | Cys | Ile | Glu | Ser | Val | Cys | Ala | Val | Cys | Met | Cys | Val | Ser |
| | | | 100 | | | | 105 | | | | | | 110 | | |
| Ile | Glu | Arg | Val | Gly | Asp | Val | Val | Xaa | | | | | | | |
| | | 115 | | | | | 120 | | | | | | | | |

<210> 1037

<211> 5832

<212> DNA

<213> Homo sapiens

<400> 1037

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ccttctcctg ggggccagat gcatgctgga atcagtagct ttcagcagag taactcaagt
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120
gcgtatagtg ggggtgcccag tgcaagctac agcgggccag ggcccgggtat ggggtatcagt
180
gccacaacc agatgcatgg acaagggcca agccagccat gtggtgctgt gcccctggga
240
cgaatgccat cagctgggat gcagaacaga ccatttcctg gaaatatgag cagcatgacc
300
cccagttctc ctggcatgtc tcagcaggga gggccaggaa tggggccgcc aatgccaaact
360
gtgaaccgta aggcacagga ggcagccgca gcagtgatgc aggctgctgc gaactcagca
420
caaagcaggc aaggcagttt ccccggcatg aaccagagtg gacttatggc ttccagctct
480
ccctacagcc agcccatgaa caacagctct agcctgatga acacgcaggc gccgccctac
540
agcatggcgc ccgccatggt gaacagctcg gcagcatctg tgggtcttgc agatatgatg
600
tctcctggtg aatccaaact gcccctgcct ctcaaagcag acggcaaaga agaaggcact
660
ccacagcccc agagcaagtc aaaggatagc tacagctctc agggatatttc tcagccccca
720
acccaggca acctgccagt cccttccccca atgtccccca gctctgctag catctcctca
780
tttcatggag atgaaagtga tagcattagc agcccaggct ggccaaagac tccatcaagc
840

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cctaagtcca gctcctccac cactactggg gagaagatca cgaaggtgta cgagctgggg
900
aatgagccag agagaaagct ctgggtcgac cgatacctca ccttcatgga agagagaggg
960
tctcctgtct caagtctgcc tgccgtgggc aagaagcccc tggacctgtt ccgactctac
1020
gtctgcgtca aagagatcgg gggtttgcc cagggttaata aaaacaagaa gtggcgtgag
1080
ctggcaacca acctaaacgt tggcacctca agcagtgcag cgagctccct gaaaaagcag
1140
tatattcagt acctgtttgc ctttgagtgc aagatcgaac gtggggagga gccccgccg
1200
gaagtcttca gcaccgggga caccaaaaag cagcccaagc tccagccgcc atctcctgct
1260
aactcgggat ccttgcaagg ccacagacc cccagtcaa ctggcagcaa ttccatggca
1320
gaggttccag gtgacctgaa gccacctacc ccagcctcca cccctcacgg ccagatgact
1380
ccaatgcaag gtggaagaag cagtacaatc agtgtgcacg acccattctc agatgtgagt
1440
gattcatcct tcccgaacg gaactccatg actccaaacg cccctacca gcagggcag
1500
agcatgcccc atgtgatggg caggatgccc tatgagccca acaaggaccc ctttggggga
1560
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 Ser Tyr Ser Gly Pro Gly Pro Gly Met Gly Ile Ser Ala Asn Asn Gln
 50 55 60
 Met His Gly Gln Gly Pro Ser Gln Pro Cys Gly Ala Val Pro Leu Gly
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 Arg Lys Leu Trp Val Asp Arg Tyr Leu Thr Phe Met Glu Glu Arg Gly
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| | | | | | | | | | | | | | | | | | |
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| Asn | Lys | Asn | Lys | Lys | Trp | Arg | Glu | Leu | Ala | Thr | Asn | Leu | Asn | Val | Gly | | |
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| Thr | Ser | Ser | Ser | Ala | Ala | Ser | Ser | Leu | Lys | Lys | Gln | Tyr | Ile | Gln | Tyr | | |
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| Pro | Ser | Pro | Ala | Asn | Ser | Gly | Ser | Leu | Gln | Gly | Pro | Gln | Thr | Pro | Gln | | |
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| Ser | Thr | Gly | Ser | Asn | Ser | Met | Ala | Glu | Val | Pro | Gly | Asp | Leu | Lys | Pro | | |
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| Pro | Thr | Pro | Ala | Ser | Thr | Pro | His | Gly | Gln | Met | Thr | Pro | Met | Gln | Gly | | |
| | 450 | | | | | 455 | | | | | 460 | | | | | | |
| Gly | Arg | Ser | Ser | Thr | Ile | Ser | Val | His | Asp | Pro | Phe | Ser | Asp | Val | Ser | | |
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| Gln | Gln | Gly | Met | Ser | Met | Pro | Asp | Val | Met | Gly | Arg | Met | Pro | Tyr | Glu | | |
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| Pro | Asn | Lys | Asp | Pro | Phe | Gly | Gly | Met | Arg | Lys | Val | Pro | Gly | Ser | Ser | | |
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| Gln | Arg | Gln | Gln | Phe | Pro | Tyr | Gly | Ala | Ser | Tyr | Asp | Arg | Arg | His | Glu | | |
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| Gln | Ile | Gln | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | |
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| Thr | Arg | Pro | Pro | Gln | Pro | Ser | Tyr | Gln | Thr | Pro | Pro | Ser | Leu | Pro | Asn | |
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| Asn | Arg | Met | Ser | Pro | Ser | Lys | Ser | Pro | Phe | Leu | Pro | Ser | Met | Lys | Met | |
| | | | | 805 | | | | | 810 | | | | | 815 | | |
| Gln | Lys | Val | Met | Pro | Thr | Val | Pro | Thr | Ser | Gln | Val | Thr | Gly | Pro | Pro | |
| | | | 820 | | | | | 825 | | | | | 830 | | | |
| Pro | Gln | Pro | Pro | Pro | Ile | Arg | Arg | Glu | Ile | Thr | Phe | Pro | Pro | Gly | Ser | |
| | | 835 | | | | | 840 | | | | | 845 | | | | |
| Val | Glu | Ala | Ser | Gln | Pro | Val | Leu | Lys | Gln | Arg | Arg | Lys | Ile | Thr | Ser | |
| | 850 | | | | | 855 | | | | | 860 | | | | | |
| Lys | Asp | Ile | Val | Thr | Pro | Glu | Ala | Trp | Arg | Val | Met | Met | Ser | Leu | Lys | |
| 865 | | | | | 870 | | | | | 875 | | | | | 880 | |
| Ser | Gly | Leu | Leu | Ala | Glu | Ser | Thr | Trp | Ala | Leu | Asp | Thr | Ile | Asn | Ile | |
| | | | | 885 | | | | | 890 | | | | | 895 | | |
| Leu | Leu | Tyr | Asp | Asp | Ser | Thr | Val | Ala | Thr | Phe | Asn | Leu | Ser | Gln | Leu | |
| | | | 900 | | | | | 905 | | | | | | 910 | | |
| Ser | Gly | Phe | Leu | Glu | Leu | Leu | Val | Glu | Tyr | Phe | Arg | Lys | Cys | Leu | Ile | |
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| | 930 | | | | | 935 | | | | | 940 | | | | | |
| Lys | Ala | Leu | Asp | His | Asn | Ala | Ala | Arg | Lys | Asp | Asp | Ser | Gln | Ser | Leu | |
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| Ala | Asp | Asp | Ser | Gly | Lys | Glu | Glu | Glu | Asp | Ala | Glu | Cys | Ile | Asp | Asp | |
| | | | | 965 | | | | | 970 | | | | | 975 | | |
| Asp | Glu | Glu | Asp | Glu | Glu | Asp | Glu | Glu | Glu | Asp | Ser | Glu | Lys | Thr | Glu | |
| | | | 980 | | | | | 985 | | | | | 990 | | | |
| Ser | Asp | Glu | Lys | Ser | Ser | Ile | Ala | Leu | Thr | Ala | Pro | Asp | Ala | Ala | Ala | |
| | 995 | | | | | | 1000 | | | | | 1005 | | | | |
| Asp | Pro | Lys | Glu | Lys | Pro | Lys | Gln | Ala | Ser | Lys | Phe | Asp | Lys | Leu | Pro | |
| | 1010 | | | | | 1015 | | | | | 1020 | | | | | |
| Ile | Lys | Ile | Val | Lys | Lys | Asn | Asn | Leu | Phe | Val | Val | Asp | Arg | Ser | Asp | |
| 1025 | | | | | 1030 | | | | | 1035 | | | | | 1040 | |
| Lys | Leu | Gly | Arg | Val | Gln | Glu | Phe | Asn | Ser | Gly | Leu | Leu | His | Trp | Gln | |
| | | | | 1045 | | | | | 1050 | | | | | 1055 | | |
| Leu | Gly | Gly | Gly | Asp | Thr | Thr | Glu | His | Ile | Gln | Thr | His | Phe | Glu | Ser | |
| | | | 1060 | | | | | 1065 | | | | | 1070 | | | |
| Lys | Met | Glu | Ile | Pro | Pro | Arg | Arg | Arg | Pro | Pro | Pro | Pro | Leu | Ser | Ser | |
| | 1075 | | | | | | 1080 | | | | | | | | | |

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Leu His His Glu His Pro Glu Arg Lys Arg Ala Pro Gln Thr Tyr Glu
          1220          1225          1230
Lys Glu Glu Asp Glu Asp Lys Gly Val Ala Cys Ser Lys Asp Glu Trp
          1235          1240          1245
Trp Trp Asp Cys Leu Glu Val Leu Arg Asp Asn Thr Leu Val Thr Leu
          1250          1255          1260
Ala Asn Ile Ser Gly Gln Leu Asp Leu Ser Ala Tyr Thr Glu Ser Ile
1265          1270          1275          1280
Cys Leu Pro Ile Leu Asp Gly Leu Leu His Trp Met Val Cys Pro Ser
          1285          1290          1295
Ala Glu Ala Gln Asp Pro Phe Pro Thr Val Gly Pro Asn Ser Val Pro
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          1330          1335          1340
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Pro Val Cys Arg Glu Met Ser Met Ala Leu Leu Ser Asn Leu Ala Gln
          1365          1370          1375
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Gly Asn Leu Ile Ser Phe Leu Glu Asp Gly Val Thr Met Ala Gln Tyr
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Gln Gln Ser Gln His Asn Leu Met His Met Gln Pro Pro Pro Leu Glu
          1410          1415          1420
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1425          1430          1435          1440
Met Ala Arg Val Asp Glu Asn Arg Ser Glu Phe Leu Leu His Glu Gly
          1445          1450          1455
Arg Leu Leu Asp Ile Ser Ile Ser Ala Val Leu Asn Ser Leu Val Ala
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<212> DNA

<213> Homo sapiens

<400> 1039

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Ala Leu Thr Ile Pro Val Leu Ala Leu Ser Met Ile Pro Ala Leu His
      35           40           45
Phe Pro His Trp Pro Leu Trp Ala Leu Ala Leu Thr Thr Pro Val Val
      50           55           60
Phe Trp Gly Ala Trp Pro Leu His His Ala Ala Trp Thr Asn Leu Arg
65           70           75           80
His Gly Ala Ala Ile Met Asp Thr Leu Val Ser Leu Gly Val Leu Thr
      85           90           95
Ser Tyr Leu Trp Ser Val Trp Met Leu Thr Thr Gly Gly Glu His Leu
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Tyr Leu Glu Val Ala Val His Arg His Asp Ala Asp Pro Gly Arg Gln
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tttgacagcg tgctgcaggc tgccgacgtg attgtctgcc agcttgagac gccgatggac
360
actgtcggcc atgcgcctaa gcgcgggtcgc gaactgggca agacggtgat cctcaatccg
420
gcgccggcca gcggcccgcg gcctgaggat tggtagcccg ccatcgatta cctgattccc
480
aacgaaagcg aagcctcggc cttgagtggc gtggtgggtgg attcactgga cagcgccaag
540
gtcgtgcta cgcgt
555

```

<210> 1044

<211> 185

<212> PRT

<213> Homo sapiens

<400> 1044

```

Thr Gly Glu Thr Leu Ile Gly Gln Ser Phe Ser Thr Val Pro Gly Gly

```

```

      1           5           10           15
Lys Gly Ala Asn Gln Ala Val Ala Ser Ala Arg Leu Gly Ala Glu Val
      20           25           30
Ala Met Val Gly Cys Val Gly Thr Asp Ala Tyr Gly Ala Gln Leu Arg
      35           40           45
Asp Ala Leu Leu Val Glu Gly Ile Asp Cys Gln Ala Val Ser Thr Val
      50           55           60
Asp Gly Ser Ser Gly Val Ala Leu Ile Val Val Asp Asp Ser Ser Gln
      65           70           75           80
Asn Ala Ile Val Ile Val Ala Gly Ser Asn Gly Glu Leu Thr Pro Ala
      85           90           95
Lys Leu Gln Thr Phe Asp Ser Val Leu Gln Ala Ala Asp Val Ile Val
      100          105          110
Cys Gln Leu Glu Thr Pro Met Asp Thr Val Gly His Ala Pro Lys Arg
      115          120          125
Gly Arg Glu Leu Gly Lys Thr Val Ile Leu Asn Pro Ala Pro Ala Ser
      130          135          140
Gly Pro Leu Pro Glu Asp Trp Tyr Ala Ala Ile Asp Tyr Leu Ile Pro
      145          150          155          160
Asn Glu Ser Glu Ala Ser Ala Leu Ser Gly Val Val Val Asp Ser Leu
      165          170          175
Asp Ser Ala Lys Val Ala Ala Thr Arg
      180          185

```

<210> 1045

<211> 371

<212> DNA

<213> Homo sapiens

<400> 1045

```

ctattgccat actaccgccg cggcaaccta caggacatga tcaacgccaa cctcttcaat
60
cactccaaat tccccgagac gcaccttatg aatctatttc tcggcgtctg caaggccctg
120
cgcgccatgc acgattacca cgcaccgccg gcagagcgca tgccaattgg gcaccgaagg
180
cagaccacca cccaggtgca aagcaacagt ggtagagcgg tcgctcatcg acgaaacgta
240
cggaagaaga cgaagagacg gagcaggaaa gacctgttat ggaatcacag aaccacatcg
300
ggcagggcgg cgagcacaaa accatatgcg catcgcgaca ttaaaccagg tacgtgctgc
360
aagtcctcg g
371

```

<210> 1046

<211> 123

<212> PRT

<213> Homo sapiens

<400> 1046

```

Leu Leu Pro Tyr Tyr Arg Arg Gly Asn Leu Gln Asp Met Ile Asn Ala
  1           5           10           15
Asn Leu Phe Asn His Ser Lys Phe Pro Glu Thr His Leu Met Asn Leu

```

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 20 | | 25 | | 30 | | | | | | | | | | |
| Phe | Leu | Gly | Val | Cys | Lys | Ala | Leu | Arg | Ala | Met | His | Asp | Tyr | His | Ala |
| | 35 | | 40 | | 45 | | | | | | | | | | |
| Pro | Pro | Ala | Glu | Arg | Met | Pro | Ile | Gly | His | Arg | Arg | Gln | Thr | Thr | Thr |
| | 50 | | 55 | | 60 | | | | | | | | | | |
| Gln | Val | Gln | Ser | Asn | Ser | Gly | Arg | Ala | Val | Ala | His | Arg | Arg | Asn | Val |
| 65 | | | 70 | | 75 | | | | | | | | | 80 | |
| Arg | Lys | Lys | Thr | Lys | Arg | Arg | Ser | Arg | Lys | Asp | Leu | Leu | Trp | Asn | His |
| | | | 85 | | 90 | | | | | | | | | 95 | |
| Arg | Thr | Thr | Ser | Gly | Arg | Ala | Ala | Ser | Thr | Lys | Pro | Tyr | Ala | His | Arg |
| | | | 100 | | 105 | | | | | | | | | 110 | |
| Asp | Ile | Lys | Pro | Gly | Thr | Cys | Cys | Lys | Leu | Leu | | | | | |
| | 115 | | | | 120 | | | | | | | | | | |

<210> 1047
 <211> 754
 <212> DNA
 <213> Homo sapiens

<400> 1047
 natgccaga aggacctgga cgaggcgttg ccagccctgg atgcggctct ggccagccta
 60
 cgcaacctca acaagaacga agtgaccag gtacgtgcca tgcagcggcc acccccgggt
 120
 gtgaaactgg tcatagaagc tgtgtgcatt atgaaaggca tcaagcccaa gaagggtgcct
 180
 ggagaaaagc caggcaccaa ggtggatgac tactgggagc ctggcaagggt gctgctgcag
 240
 gacccgggccc acttccttga gagcctcttc aagtttgaca aggacaacat tggagatgtg
 300
 gtgatcaaag ccatccagcc gtacatcgat aatgaagagt tccagccagc caccattgcc
 360
 aaggtgtcca aggggtgccc cttcatttgg ccgtgggggg gggcaatgcc caagtacccc
 420
 tttgtggcca aggccgtgga gcccaagcgg caagccctgc tggaggccca ggatgacctg
 480
 ggggtgacac agaggatcct ggatgaggca aaacagcgcc ttcgtgaggt ggaggacggc
 540
 atgccacaa tgcaggctaa gtaccgggaa tgcattacca agaaggagga gctggagctg
 600
 aagtgtgagc agtgtgagca gcggctgggc cacgctggca aggtgcgcac cctcctcctg
 660
 caaggcctgc aagcgggccc ggcccagaca ggggccagaa aggaccaggg cgccgggtggg
 720
 tcctgggggtg gctgtccaac cccctccctg gcaa
 754

<210> 1048
 <211> 251
 <212> PRT
 <213> Homo sapiens

<400> 1048
 Xaa Ala Gln Lys Asp Leu Asp Glu Ala Leu Pro Ala Leu Asp Ala Ala

| | | | |
|---|---|-----|-----|
| 1 | 5 | 10 | 15 |
| Leu Ala Ser | Leu Arg Asn Leu Asn Lys Asn Glu Val Thr Gln Val Arg | | |
| 20 | 25 | 30 | |
| Ala Met Gln Arg Pro Pro Pro Gly Val Lys Leu Val Ile Glu Ala Val | | | |
| 35 | 40 | 45 | |
| Cys Ile Met Lys Gly Ile Lys Pro Lys Lys Val Pro Gly Glu Lys Pro | | | |
| 50 | 55 | 60 | |
| Gly Thr Lys Val Asp Asp Tyr Trp Glu Pro Gly Lys Gly Leu Leu Gln | | | |
| 65 | 70 | 75 | 80 |
| Asp Pro Gly His Phe Leu Glu Ser Leu Phe Lys Phe Asp Lys Asp Asn | | | |
| 85 | 90 | 95 | |
| Ile Gly Asp Val Val Ile Lys Ala Ile Gln Pro Tyr Ile Asp Asn Glu | | | |
| 100 | 105 | 110 | |
| Glu Phe Gln Pro Ala Thr Ile Ala Lys Val Ser Lys Gly Cys Pro Phe | | | |
| 115 | 120 | 125 | |
| Ile Trp Pro Trp Gly Gly Ala Met Pro Lys Tyr Pro Phe Val Ala Lys | | | |
| 130 | 135 | 140 | |
| Ala Val Glu Pro Lys Arg Gln Ala Leu Leu Glu Ala Gln Asp Asp Leu | | | |
| 145 | 150 | 155 | 160 |
| Gly Val Thr Gln Arg Ile Leu Asp Glu Ala Lys Gln Arg Leu Arg Glu | | | |
| 165 | 170 | 175 | |
| Val Glu Asp Gly Ile Ala Thr Met Gln Ala Lys Tyr Arg Glu Cys Ile | | | |
| 180 | 185 | 190 | |
| Thr Lys Lys Glu Glu Leu Glu Leu Lys Cys Glu Gln Cys Glu Gln Arg | | | |
| 195 | 200 | 205 | |
| Leu Gly His Ala Gly Lys Val Arg Thr Leu Leu Leu Gln Gly Leu Gln | | | |
| 210 | 215 | 220 | |
| Ala Gly Pro Ala Gln Thr Gly Ala Arg Lys Asp Gln Gly Ala Gly Gly | | | |
| 225 | 230 | 235 | 240 |
| Ser Trp Gly Gly Cys Pro Thr Pro Ser Leu Ala | | | |
| 245 | 250 | | |

<210> 1049

<211> 558

<212> DNA

<213> Homo sapiens

<400> 1049

cgcagcaata gctgcacttg accagactgg gctttgcaat aagcgcatte cccgggctga
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 atgctgcaga tccttacagg ctgactgcag ggtgtttcag attctcctgg agtcacacgt
 120
 gccagcttga tttcaagaaa caactagaat aacagttttc tgataagaag tctatagcac
 180
 tttatggctt acataatcca gagatagatg ggctgggcat gattcccatt ttctgttggg
 240
 gaaaccgact cacagagaag ttaagggaca agtataaagt gatgaaactg tgtactgaac
 300
 ctcattgtctc ccagactccc ggggtccccgg gctttttctc gggggcgccc cattcacatt
 360
 gcaattcatg gccggggcaa atgctcacc acagagatat taagcactcc aacactccat
 420
 ccaccagggt gcagccaaag gattcagaag acaatgatca ttccatcagc atgcactatg
 480

cagctaaaga aaggttttgg catgctctgc tttattgttt cacagaagat aagaaaataa
 540
 actgcaaagt aacttaag
 558

<210> 1050
 <211> 112
 <212> PRT
 <213> Homo sapiens

<400> 1050
 Met Ile Pro Ile Phe Cys Trp Gly Asn Arg Leu Thr Glu Lys Leu Arg
 1 5 10 15
 Asp Lys Tyr Lys Val Met Lys Leu Cys Thr Glu Pro His Val Ser Gln
 20 25 30
 Thr Pro Gly Ser Pro Gly Phe Phe Ser Gly Arg Pro His Ser His Cys
 35 40 45
 Asn Ser Trp Pro Gly Gln Met Leu Thr His Arg Asp Ile Lys His Ser
 50 55 60
 Asn Thr Pro Ser Thr Arg Leu Gln Pro Lys Asp Ser Glu Asp Asn Asp
 65 70 75 80
 His Ser Ile Ser Met His Tyr Ala Ala Lys Glu Arg Phe Trp His Ala
 85 90 95
 Leu Leu Tyr Cys Phe Thr Glu Asp Lys Lys Ile Asn Cys Lys Val Thr
 100 105 110

<210> 1051
 <211> 317
 <212> DNA
 <213> Homo sapiens

<400> 1051
 gcgttgagtc gggatgtcgc attcatgccc ggcgaaacctt tttttgccga accggagcgt
 60
 aatccgggta atcttctgtct caatttcagt cacatcgcac cggagcgtct ggacgaaggt
 120
 ctcaagcgcc tggctgctgt catcgcgcac gcacaggctg cacaagcggc ttaaggggag
 180
 ggccatgtac aaggtttatg gcgattacca gtcgggcaat tgctacaaga tcaagctgat
 240
 gctgcacctg ctggggcagg aatatcgctg gcacccgggg gacatcctca aggtgacacc
 300
 gagaccccgga aattttt
 317

<210> 1052
 <211> 57
 <212> PRT
 <213> Homo sapiens

<400> 1052
 Ala Leu Ser Arg Asp Val Ala Phe Met Pro Gly Glu Pro Phe Phe Ala
 1 5 10 15
 Glu Pro Glu Arg Asn Pro Gly Asn Leu Arg Leu Asn Phe Ser His Ile

20 25 30
 Ala Pro Glu Arg Leu Asp Glu Gly Leu Lys Arg Leu Ala Ala Val Ile
 35 40 45
 Arg His Ala Gln Ala Ala Gln Ala Ala
 50 55

<210> 1053
 <211> 318
 <212> DNA
 <213> Homo sapiens

<400> 1053
 caattggcta cgcgatccga acgggcgcat ggggtctctat gactggcaag ccgtcgctcg
 60
 cggggagtg ggcctcgact atgcctacgc gatgtcggtg aacctgacca ccgagaaccg
 120
 gcgtgcctgg gaacgcgacc tgctcgagcg ttatctgtgg cgcctcgccg aagaggggtg
 180
 cgccaacccg ccctcgttcg agcaagcgtg gctacgctac cggcaacagc cgttccacgt
 240
 cgggatcttc tcaactcttga ccacgagcgc cggacgcttt caaccggcca tgcaaccggc
 300
 ggactcnnnn ccccnnc
 318

<210> 1054
 <211> 96
 <212> PRT
 <213> Homo sapiens

<400> 1054
 Met Gly Leu Tyr Asp Trp Gln Ala Val Ala Arg Gly Glu Trp Ala Leu
 1 5 10 15
 Asp Tyr Ala Tyr Ala Met Ser Val Asn Leu Thr Thr Glu Asn Arg Arg
 20 25 30
 Ala Trp Glu Arg Asp Leu Leu Glu Arg Tyr Leu Trp Arg Leu Ala Glu
 35 40 45
 Glu Gly Val Ala Asn Pro Pro Ser Phe Glu Gln Ala Trp Leu Arg Tyr
 50 55 60
 Arg Gln Gln Pro Phe His Val Gly Ile Phe Ser Leu Leu Thr Ile Gly
 65 70 75 80
 Ala Gly Arg Phe Gln Pro Ala Met Gln Pro Ala Asp Ser Xaa Pro Xaa
 85 90 95

<210> 1055
 <211> 391
 <212> DNA
 <213> Homo sapiens

<400> 1055
 tacaatgtat catcaaccag aaatacaatg agaaccacct gccagtctcc caaatactat
 60
 ctgcagccac tcatttaact ctctgggcta gctccacgtg ggccgtctga actctcttag
 120

aagaatcatc tctctgctca ggcaccggga gcaaggggca tctgtcgctc tgcagaacgg
 180
 aggggaccag gcctgatgaa caccatcctg ggcccagaaa cctgggaggg taaagagaac
 240
 tgccaggggt gaagtccaag gatgggaaaa aggccctcgg ggcagagtcc tgaaatgtca
 300
 gaagtacacc aaagaggaaa cagcatcacg ttattgtgga ggcagggcct cattctgttg
 360
 ccaaggctgc agtgcagtgg tgacaccatg g
 391

<210> 1056

<211> 83

<212> PRT

<213> Homo sapiens

<400> 1056

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Val | Ser | Pro | Leu | His | Cys | Ser | Leu | Gly | Asn | Arg | Met | Arg | Pro | Cys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Ser | Asn | Asn | Val | Met | Leu | Phe | Pro | Leu | Trp | Cys | Thr | Ser | Asp | Ile |
| | | 20 | | | | | | 25 | | | | 30 | | | |
| Ser | Gly | Leu | Cys | Pro | Gly | Gly | Leu | Phe | Pro | Ile | Leu | Gly | Leu | His | Pro |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Trp | Gln | Phe | Ser | Leu | Pro | Ser | Gln | Val | Ser | Gly | Pro | Arg | Met | Val | Phe |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Ile | Arg | Pro | Gly | Pro | Leu | Arg | Ser | Ala | Glu | Arg | Gln | Met | Pro | Leu | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Pro | Gly | Ala | | | | | | | | | | | | | |

<210> 1057

<211> 341

<212> DNA

<213> Homo sapiens

<400> 1057

gaattccctg cgcgtgtgac gccggtcgcc gagcaactcg gcgtgtcgct gacgctgcat
 60
 cccgatgata cgcccgctcc gctgttcggg ttgccgcgca ttgcgtccag cgccgaggac
 120
 tatcaggcgc tggtcgatgc ggtaccgtcc aaggcgaacg gcattctgct gtgcacgggt
 180
 tcgctcggcg tgcgcgcgga gaacgatctg cctgaaatgg ccgaacgttt cggcccgcgt
 240
 atcgcccttg cgcattctgc cgcgaccaag cgcgacgccg atggcctgtc gtttcatgaa
 300
 tccgaccatc tcgacggcga tgtcgacatg gtcgcgtgct c
 341

<210> 1058

<211> 113

<212> PRT

<213> Homo sapiens